Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
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After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. If an investment of $14,000 compounds at 7.70% annually for 5 years, what would be its value if the interest rate suddenly drops to 5.00% for the next 6 years?

A. $14,096.20
B. $27,185.81
C. $15,138.08
D. $14,912.42

2. A potential investment of $3,000,000 is projected to generate cash flows of $300,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.75% and 9.75%?

A. $343,562
B. $9,774
C. $5,374
D. $120,000

3. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Withdrawing money periodically.
B. Decreasing the interest rate.
C. Increasing the periodic contribution amount.
D. Increasing the target amount.

4. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. More frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

5. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,400 is invested for 6 years at an annual rate of 7.00%.

A. $240.25
B. $46.50
C. $3,601.75
D. $1,116.52

6. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV usually gives a higher value than IRR.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. IRR is complicated and difficult to calculate.
D. IRR cannot be used for mutually exclusive projects.

7. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. It will go up.
C. It will not change.
D. There's not enough information to answer this question.

8. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value remains the same.
C. The present value increases.
D. The present value decreases.

9. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Proceed with Project B, but not Project A.
C. Proceed with both projects as the combined NPV meets the required rate of return.
D. Don't pursue either project as they are dependent, and Project A has a negative NPV.

10. Calculate the absolute difference in dollars between the future values of two identical investments of $4,500 over 9 years at an annual rate of 9.30%, with one compounded annually and the other compounded quarterly.

A. $340.65
B. $20,311.62
C. $275.03
D. $251.65

11. An investment of $5,200 grows to $9,800 in 7 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $9,800?

A. $141.53
B. $612.54
C. $2,610.01
D. $8,669.23

12. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,500,000
B. $1,050,000
C. $875,000
D. $700,000

13. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By shortening the project's time horizon.
C. By using a higher discount rate than the average project.
D. By reducing the expected cash flows.

14. You want to open a McDonald's franchise. The upfront cost is $2,400,000, but you are expected to generate $350,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.9%
B. 14.6%
C. 21.3%
D. 11.9%

15. Calculate the Net Present Value (NPV) given an initial investment of $350,000, Year 1 cash flow of $210,000, Year 2 cash flow of $210,000, Year 3 cash flow of $140,000, and a required rate of return of 8.75%.

A. $129,523
B. $479,523
C. $829,523
D. $306,792

16. If you need $160,000 in 14 years for a child's education and can earn 8.50% annually, how much should you invest today?

A. $73,059.36
B. $51,062.69
C. $501,344.57
D. $147,465.44

17. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

18. What does a negative calculated rate of return indicate about an investment?

A. The investment has gained value over time.
B. The calculation is incorrect.
C. The investment is low risk.
D. The investment has lost value over time.

19. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. There's not enough information to tell.
C. Either project, as they both have the same NPVs.
D. Neither project, as the company is facing capital constraints.

20. If $1,150 grows to $1,550 in 9 years, what is the implied annual growth rate?

A. -11.07%
B. 3.37%
C. 34.78%
D. -3.37%

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Form #1

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Instructions:
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- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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After the Exam

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Good luck!

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1. Calculate the Net Present Value (NPV) given an initial investment of $360,000, Year 1 cash flow of $230,000, Year 2 cash flow of $180,000, Year 3 cash flow of $140,000, and a required rate of return of 8.50%.

A. $834,491
B. $474,491
C. $114,491
D. $280,271

2. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value remains the same.
C. The present value fluctuates randomly.
D. The present value increases.

3. You want to open a McDonald's franchise. The upfront cost is $2,900,000, but you are expected to generate $420,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.8%
B. 14.5%
C. 21.1%
D. 11.7%

4. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,800 is invested for 4 years at an annual rate of 5.40%.

A. $2,221.44
B. $11.46
C. $44.10
D. $388.82

5. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Decreasing the interest rate.
C. Withdrawing money periodically.
D. Increasing the target amount.

6. Calculate the absolute difference in dollars between the future values of two identical investments of $3,900 over 8 years at an annual rate of 8.30%, with one compounded annually and the other compounded quarterly.

A. $144.02
B. $131.08
C. $178.03
D. $14,905.24

7. If $1,150 grows to $1,550 in 10 years, what is the implied annual growth rate?

A. -10.02%
B. -3.03%
C. 3.03%
D. 34.78%

8. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By reducing the expected cash flows.
C. By shortening the project's time horizon.
D. By using a higher discount rate than the average project.

9. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. Neither project, as the company is facing capital constraints.
D. Either project, as they both have the same NPVs.

10. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. IRR is complicated and difficult to calculate.
D. NPV usually gives a higher value than IRR.

11. If an investment of $13,000 compounds at 8.40% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.90% for the next 6 years?

A. $15,829.46
B. $28,104.25
C. $15,602.79
D. $13,104.12

12. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV will always be positive regardless of the discount rate used.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

13. A potential investment of $3,700,000 is projected to generate cash flows of $310,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 5.00% and 10.00%?

A. $5,552
B. $349,769
C. $10,144
D. $124,000

14. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go up.
C. There's not enough information to answer this question.
D. It will go down.

15. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with both projects as the combined NPV meets the required rate of return.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with Project B, but not Project A.
D. Don't pursue either project as they are dependent, and Project A has a negative NPV.

16. An investment of $6,900 grows to $11,900 in 11 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,900?

A. $2,807.91
B. $80.60
C. $8,623.19
D. $384.88

17. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,500,000
B. $1,050,000
C. $700,000
D. $875,000

18. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The calculation is incorrect.
C. The investment is low risk.
D. The investment has gained value over time.

19. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. Less frequent compounding results in a higher future value.
C. More frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

20. If you need $120,000 in 13 years for a child's education and can earn 7.50% annually, how much should you invest today?

A. $111,627.91
B. $60,759.49
C. $307,249.57
D. $46,867.44

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Form #2

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Good luck!

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1. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By using a higher discount rate than the average project.
C. By shortening the project's time horizon.
D. By reducing the expected cash flows.

2. A potential investment of $3,400,000 is projected to generate cash flows of $310,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.00% and 10.50%?

A. $7,219
B. $463,003
C. $161,200
D. $13,126

3. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. Neither project, as the company is facing capital constraints.
D. Either project, as they both have the same NPVs.

4. An investment of $6,900 grows to $12,200 in 11 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $12,200?

A. $9,371.01
B. $2,991.11
C. $417.16
D. $90.38

5. You want to open a McDonald's franchise. The upfront cost is $2,400,000, but you are expected to generate $360,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 12.4%
B. 15.0%
C. 21.7%
D. 8.3%

6. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value increases.
B. The present value decreases.
C. The present value fluctuates randomly.
D. The present value remains the same.

7. Calculate the absolute difference in dollars between the future values of two identical investments of $2,200 over 4 years at an annual rate of 4.50%, with one compounded annually and the other compounded quarterly.

A. $9.64
B. $7.69
C. $9.45
D. $5,254.77

8. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,300 is invested for 6 years at an annual rate of 7.00%.

A. $230.24
B. $44.56
C. $1,070.00
D. $3,451.68

9. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

10. Calculate the Net Present Value (NPV) given an initial investment of $340,000, Year 1 cash flow of $220,000, Year 2 cash flow of $180,000, Year 3 cash flow of $130,000, and a required rate of return of 8.25%.

A. $799,327
B. $459,327
C. $119,327
D. $273,978

11. If $900 grows to $1,400 in 4 years, what is the implied annual growth rate?

A. -13.67%
B. -11.68%
C. 11.68%
D. 55.56%

12. If an investment of $10,000 compounds at 7.50% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.10% for the next 6 years?

A. $10,388.32
B. $10,054.73
C. $10,493.72
D. $16,995.67

13. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Withdrawing money periodically.
C. Increasing the target amount.
D. Decreasing the interest rate.

14. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The investment is low risk.
D. The calculation is incorrect.

15. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,425,000
B. $825,000
C. $650,000
D. $975,000

16. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. There's not enough information to answer this question.
B. It will not change.
C. It will go up.
D. It will go down.

17. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. IRR cannot be used for mutually exclusive projects.
C. NPV usually gives a higher value than IRR.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

18. How does the frequency of compounding affect the future value of an investment?

A. More frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. Less frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

19. If you need $80,000 in 9 years for a child's education and can earn 5.75% annually, how much should you invest today?

A. $52,718.29
B. $75,650.12
C. $132,316.31
D. $48,368.94

20. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Proceed with both projects as the combined NPV meets the required rate of return.
D. Proceed with Project B, but not Project A.

Form #3

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Full Name ↓
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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. An investment of $5,200 grows to $9,000 in 7 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $9,000?

A. $468.02
B. $6,576.92
C. $2,122.10
D. $97.22

2. If you need $110,000 in 10 years for a child's education and can earn 6.00% annually, how much should you invest today?

A. $68,750.00
B. $103,773.58
C. $61,423.43
D. $196,993.25

3. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Decreasing the interest rate.
B. Withdrawing money periodically.
C. Increasing the periodic contribution amount.
D. Increasing the target amount.

4. How does the frequency of compounding affect the future value of an investment?

A. The effect depends on the initial investment amount.
B. More frequent compounding results in a higher future value.
C. Less frequent compounding results in a higher future value.
D. Compounding frequency has no effect on future value.

5. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. NPV usually gives a higher value than IRR.
D. IRR cannot be used for mutually exclusive projects.

6. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Neither project, as the company is facing capital constraints.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. Either project, as they both have the same NPVs.
D. There's not enough information to tell.

7. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By increasing the initial investment amount.
C. By using a higher discount rate than the average project.
D. By shortening the project's time horizon.

8. What does a negative calculated rate of return indicate about an investment?

A. The investment is low risk.
B. The calculation is incorrect.
C. The investment has gained value over time.
D. The investment has lost value over time.

9. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Proceed with Project B, but not Project A.
D. Proceed with both projects as the combined NPV meets the required rate of return.

10. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV will always be positive regardless of the discount rate used.

11. Calculate the absolute difference in dollars between the future values of two identical investments of $3,500 over 7 years at an annual rate of 7.70%, with one compounded annually and the other compounded quarterly.

A. $11,852.08
B. $86.65
C. $95.20
D. $106.98

12. If an investment of $14,000 compounds at 7.90% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.80% for the next 6 years?

A. $16,675.89
B. $14,107.05
C. $29,270.11
D. $16,446.69

13. A potential investment of $3,600,000 is projected to generate cash flows of $310,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.50% and 10.50%?

A. $148,800
B. $420,576
C. $12,170
D. $6,663

14. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go down.
C. There's not enough information to answer this question.
D. It will go up.

15. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,100 is invested for 5 years at an annual rate of 6.40%.

A. $25.81
B. $2,863.70
C. $117.51
D. $707.10

16. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $700,000
B. $875,000
C. $1,050,000
D. $1,525,000

17. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value decreases.
C. The present value increases.
D. The present value remains the same.

18. If $1,100 grows to $1,500 in 7 years, what is the implied annual growth rate?

A. -13.46%
B. 36.36%
C. 4.53%
D. -4.53%

19. Calculate the Net Present Value (NPV) given an initial investment of $460,000, Year 1 cash flow of $280,000, Year 2 cash flow of $240,000, Year 3 cash flow of $170,000, and a required rate of return of 12.00%.

A. $1,022,329
B. $562,329
C. $393,494
D. $102,329

20. You want to open a McDonald's franchise. The upfront cost is $3,000,000, but you are expected to generate $420,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 20.7%
B. 7.3%
C. 11.1%
D. 14.0%

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Form #4

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Full Name ↓
(BLOCK LETTERS)

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,800 is invested for 4 years at an annual rate of 5.10%.

A. $365.46
B. $2,196.26
C. $39.18
D. $10.12

2. You want to open a McDonald's franchise. The upfront cost is $2,700,000, but you are expected to generate $370,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 10.7%
B. 13.7%
C. 7.0%
D. 20.4%

3. Calculate the Net Present Value (NPV) given an initial investment of $400,000, Year 1 cash flow of $240,000, Year 2 cash flow of $230,000, Year 3 cash flow of $150,000, and a required rate of return of 10.50%.

A. $516,735
B. $116,735
C. $348,421
D. $916,735

4. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV usually gives a higher value than IRR.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. IRR is complicated and difficult to calculate.
D. IRR cannot be used for mutually exclusive projects.

5. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value increases.
C. The present value remains the same.
D. The present value decreases.

6. What does a negative calculated rate of return indicate about an investment?

A. The investment has gained value over time.
B. The investment is low risk.
C. The calculation is incorrect.
D. The investment has lost value over time.

7. How does the frequency of compounding affect the future value of an investment?

A. More frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. Less frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

8. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Either project, as they both have the same NPVs.
C. Neither project, as the company is facing capital constraints.
D. Project A, because it generates the same NPV with a lower upfront investment.

9. If an investment of $10,000 compounds at 6.00% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.40% for the next 6 years?

A. $17,327.36
B. $10,215.90
C. $10,056.54
D. $10,335.38

10. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with both projects as the combined NPV meets the required rate of return.
D. Proceed with Project B, but not Project A.

11. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By shortening the project's time horizon.
C. By using a higher discount rate than the average project.
D. By increasing the initial investment amount.

12. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Increasing the target amount.
C. Decreasing the interest rate.
D. Withdrawing money periodically.

13. Calculate the absolute difference in dollars between the future values of two identical investments of $4,100 over 6 years at an annual rate of 7.10%, with one compounded annually and the other compounded quarterly.

A. $66.60
B. $82.14
C. $64.42
D. $12,441.76

14. If $1,050 grows to $1,450 in 6 years, what is the implied annual growth rate?

A. 5.53%
B. -5.53%
C. 38.10%
D. -14.86%

15. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV will always be positive regardless of the discount rate used.
B. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

16. An investment of $6,100 grows to $11,500 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,500?

A. $496.34
B. $3,082.25
C. $116.15
D. $10,180.33

17. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. It will not change.
C. It will go down.
D. There's not enough information to answer this question.

18. If you need $140,000 in 14 years for a child's education and can earn 8.25% annually, how much should you invest today?

A. $129,330.25
B. $64,965.20
C. $46,146.35
D. $424,735.64

19. A potential investment of $3,500,000 is projected to generate cash flows of $310,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.75% and 9.50%?

A. $117,800
B. $9,574
C. $5,276
D. $339,636

20. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $650,000
B. $975,000
C. $825,000
D. $1,425,000

Form #5

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Full Name ↓
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Instructions:
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Mid-Term Exam

Introduction

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Instructions

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- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By using a higher discount rate than the average project.
C. By increasing the initial investment amount.
D. By shortening the project's time horizon.

2. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with Project B, but not Project A.
D. Proceed with both projects as the combined NPV meets the required rate of return.

3. What does a negative calculated rate of return indicate about an investment?

A. The investment is low risk.
B. The investment has lost value over time.
C. The investment has gained value over time.
D. The calculation is incorrect.

4. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
B. IRR cannot be used for mutually exclusive projects.
C. IRR is complicated and difficult to calculate.
D. NPV usually gives a higher value than IRR.

5. Calculate the Net Present Value (NPV) given an initial investment of $410,000, Year 1 cash flow of $230,000, Year 2 cash flow of $240,000, Year 3 cash flow of $170,000, and a required rate of return of 9.50%.

A. $352,815
B. $129,689
C. $949,689
D. $539,689

6. Calculate the absolute difference in dollars between the future values of two identical investments of $2,900 over 4 years at an annual rate of 6.90%, with one compounded annually and the other compounded quarterly.

A. $31.62
B. $7,599.89
C. $25.66
D. $26.49

7. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,100 is invested for 5 years at an annual rate of 6.00%.

A. $22.31
B. $2,810.27
C. $102.59
D. $657.25

8. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. The effect depends on the initial investment amount.
C. More frequent compounding results in a higher future value.
D. Less frequent compounding results in a higher future value.

9. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Withdrawing money periodically.
B. Decreasing the interest rate.
C. Increasing the target amount.
D. Increasing the periodic contribution amount.

10. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $550,000, Project X: $475,000, Project Y: $375,000, and Project Z: $200,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $925,000
B. $1,600,000
C. $750,000
D. $1,125,000

11. An investment of $6,800 grows to $11,700 in 11 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,700?

A. $8,430.88
B. $376.38
C. $78.56
D. $2,750.46

12. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Neither project, as the company is facing capital constraints.
B. There's not enough information to tell.
C. Project A, because it generates the same NPV with a lower upfront investment.
D. Either project, as they both have the same NPVs.

13. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

14. If $1,050 grows to $1,450 in 5 years, what is the implied annual growth rate?

A. -17.55%
B. 6.67%
C. -6.67%
D. 38.10%

15. If you need $120,000 in 10 years for a child's education and can earn 6.25% annually, how much should you invest today?

A. $112,941.18
B. $73,846.15
C. $65,447.32
D. $220,024.29

16. If an investment of $12,000 compounds at 7.30% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.90% for the next 5 years?

A. $12,064.59
B. $12,522.84
C. $20,204.94
D. $12,373.22

17. A potential investment of $3,800,000 is projected to generate cash flows of $300,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 5.00% and 9.75%?

A. $5,105
B. $114,000
C. $323,815
D. $9,306

18. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value remains the same.
C. The present value decreases.
D. The present value increases.

19. You want to open a McDonald's franchise. The upfront cost is $2,800,000, but you are expected to generate $390,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 11.0%
B. 20.6%
C. 13.9%
D. 7.3%

20. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. There's not enough information to answer this question.
C. It will go up.
D. It will not change.

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Form #6

Student ID:

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Full Name ↓
(BLOCK LETTERS)

Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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2.	○	○	○	○
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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Calculate the Net Present Value (NPV) given an initial investment of $430,000, Year 1 cash flow of $260,000, Year 2 cash flow of $270,000, Year 3 cash flow of $190,000, and a required rate of return of 11.50%.

A. $587,427
B. $157,427
C. $458,948
D. $1,017,427

2. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $700,000
B. $1,050,000
C. $1,525,000
D. $875,000

3. If an investment of $15,000 compounds at 8.20% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.30% for the next 6 years?

A. $15,088.13
B. $15,969.62
C. $26,467.09
D. $15,793.27

4. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
D. The project's NPV will always be positive regardless of the discount rate used.

5. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. NPV usually gives a higher value than IRR.
C. IRR is complicated and difficult to calculate.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

6. An investment of $6,500 grows to $10,900 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,900?

A. $73.06
B. $7,378.46
C. $2,454.59
D. $364.15

7. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value remains the same.
C. The present value increases.
D. The present value fluctuates randomly.

8. A potential investment of $1,700,000 is projected to generate cash flows of $270,000 annually for the next 5 years. What's the absolute difference in NPV between a discount rate of 2.25% and 8.00%?

A. $2,323
B. $9,924
C. $77,625
D. $185,420

9. If you need $130,000 in 13 years for a child's education and can earn 7.00% annually, how much should you invest today?

A. $53,945.38
B. $313,279.85
C. $121,495.33
D. $68,062.83

10. You want to open a McDonald's franchise. The upfront cost is $2,900,000, but you are expected to generate $410,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 14.1%
B. 11.3%
C. 7.5%
D. 20.8%

11. What does a negative calculated rate of return indicate about an investment?

A. The calculation is incorrect.
B. The investment is low risk.
C. The investment has lost value over time.
D. The investment has gained value over time.

12. If $1,050 grows to $1,500 in 8 years, what is the implied annual growth rate?

A. -4.56%
B. 4.56%
C. 42.86%
D. -10.05%

13. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. There's not enough information to tell.
C. Either project, as they both have the same NPVs.
D. Neither project, as the company is facing capital constraints.

14. Calculate the absolute difference in dollars between the future values of two identical investments of $4,800 over 8 years at an annual rate of 8.70%, with one compounded annually and the other compounded quarterly.

A. $247.56
B. $18,911.59
C. $200.14
D. $218.59

15. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with both projects as the combined NPV meets the required rate of return.
D. Proceed with Project B, but not Project A.

16. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the target amount.
B. Increasing the periodic contribution amount.
C. Withdrawing money periodically.
D. Decreasing the interest rate.

17. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. It will go down.
C. There's not enough information to answer this question.
D. It will not change.

18. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By shortening the project's time horizon.
C. By using a higher discount rate than the average project.
D. By reducing the expected cash flows.

19. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,800 is invested for 5 years at an annual rate of 6.00%.

A. $563.35
B. $19.12
C. $2,408.81
D. $87.93

20. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. The effect depends on the initial investment amount.
C. Compounding frequency has no effect on future value.
D. More frequent compounding results in a higher future value.

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Form #7

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
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- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Withdrawing money periodically.
B. Increasing the target amount.
C. Decreasing the interest rate.
D. Increasing the periodic contribution amount.

2. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. It will go down.
C. There's not enough information to answer this question.
D. It will not change.

3. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. The effect depends on the initial investment amount.
C. More frequent compounding results in a higher future value.
D. Less frequent compounding results in a higher future value.

4. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By increasing the initial investment amount.
C. By shortening the project's time horizon.
D. By using a higher discount rate than the average project.

5. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with Project B, but not Project A.
B. Proceed with both projects as the combined NPV meets the required rate of return.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Don't pursue either project as they are dependent, and Project A has a negative NPV.

6. If you need $150,000 in 15 years for a child's education and can earn 7.75% annually, how much should you invest today?

A. $48,958.95
B. $459,568.70
C. $69,364.16
D. $139,211.14

7. An investment of $6,400 grows to $11,000 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,000?

A. $2,578.71
B. $389.30
C. $7,906.25
D. $80.95

8. What does a negative calculated rate of return indicate about an investment?

A. The investment is low risk.
B. The investment has lost value over time.
C. The investment has gained value over time.
D. The calculation is incorrect.

9. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV usually gives a higher value than IRR.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

10. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

11. Calculate the absolute difference in dollars between the future values of two identical investments of $4,600 over 9 years at an annual rate of 9.50%, with one compounded annually and the other compounded quarterly.

A. $343.10
B. $369.15
C. $21,119.57
D. $297.93

12. If $1,100 grows to $1,500 in 8 years, what is the implied annual growth rate?

A. 36.36%
B. -3.95%
C. 3.95%
D. -11.88%

13. You want to open a McDonald's franchise. The upfront cost is $2,400,000, but you are expected to generate $350,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 21.3%
B. 11.9%
C. 7.9%
D. 14.6%

14. Calculate the Net Present Value (NPV) given an initial investment of $510,000, Year 1 cash flow of $310,000, Year 2 cash flow of $290,000, Year 3 cash flow of $220,000, and a required rate of return of 14.00%.

A. $546,224
B. $133,569
C. $643,569
D. $1,153,569

15. A potential investment of $4,000,000 is projected to generate cash flows of $320,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 5.00% and 9.75%?

A. $121,600
B. $9,926
C. $5,445
D. $345,403

16. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $700,000
B. $1,500,000
C. $1,050,000
D. $875,000

17. If an investment of $15,000 compounds at 8.30% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.80% for the next 6 years?

A. $18,268.14
B. $15,118.32
C. $32,064.89
D. $18,017.05

18. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value increases.
B. The present value remains the same.
C. The present value fluctuates randomly.
D. The present value decreases.

19. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,700 is invested for 4 years at an annual rate of 5.00%.

A. $2,066.36
B. $9.16
C. $35.52
D. $337.85

20. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Neither project, as the company is facing capital constraints.
C. Project A, because it generates the same NPV with a lower upfront investment.
D. Either project, as they both have the same NPVs.

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Form #8

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

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- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,700 is invested for 4 years at an annual rate of 5.40%.

A. $367.22
B. $2,098.03
C. $41.65
D. $10.82

2. How does the frequency of compounding affect the future value of an investment?

A. More frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. Less frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

3. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. There's not enough information to answer this question.
B. It will go up.
C. It will not change.
D. It will go down.

4. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,500,000
B. $875,000
C. $700,000
D. $1,050,000

5. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV will always be positive regardless of the discount rate used.
B. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

6. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the target amount.
B. Increasing the periodic contribution amount.
C. Decreasing the interest rate.
D. Withdrawing money periodically.

7. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment is low risk.
C. The investment has gained value over time.
D. The calculation is incorrect.

8. You want to open a McDonald's franchise. The upfront cost is $2,700,000, but you are expected to generate $390,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 11.7%
B. 14.4%
C. 7.8%
D. 21.1%

9. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Proceed with Project B, but not Project A.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with both projects as the combined NPV meets the required rate of return.

10. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. NPV usually gives a higher value than IRR.
C. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
D. IRR cannot be used for mutually exclusive projects.

11. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By reducing the expected cash flows.
C. By shortening the project's time horizon.
D. By using a higher discount rate than the average project.

12. Calculate the absolute difference in dollars between the future values of two identical investments of $3,700 over 6 years at an annual rate of 7.70%, with one compounded annually and the other compounded quarterly.

A. $11,621.33
B. $72.82
C. $89.89
D. $79.78

13. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value increases.
C. The present value remains the same.
D. The present value fluctuates randomly.

14. If you need $150,000 in 14 years for a child's education and can earn 8.50% annually, how much should you invest today?

A. $47,871.27
B. $470,010.54
C. $68,493.15
D. $138,248.85

15. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. There's not enough information to tell.
D. Neither project, as the company is facing capital constraints.

16. A potential investment of $2,000,000 is projected to generate cash flows of $270,000 annually for the next 6 years. What's the absolute difference in NPV between a discount rate of 3.00% and 7.25%?

A. $185,549
B. $7,241
C. $68,850
D. $2,403

17. An investment of $6,800 grows to $11,900 in 11 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,900?

A. $2,872.38
B. $397.74
C. $8,925.00
D. $84.99

18. If $1,000 grows to $1,450 in 6 years, what is the implied annual growth rate?

A. 6.39%
B. 45.00%
C. -6.39%
D. -12.46%

19. If an investment of $12,000 compounds at 6.00% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.60% for the next 5 years?

A. $12,063.75
B. $12,689.73
C. $20,108.01
D. $12,824.85

20. Calculate the Net Present Value (NPV) given an initial investment of $420,000, Year 1 cash flow of $230,000, Year 2 cash flow of $210,000, Year 3 cash flow of $170,000, and a required rate of return of 10.25%.

A. $88,241
B. $508,241
C. $928,241
D. $316,648

Form #9

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Full Name ↓
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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. If you need $160,000 in 15 years for a child's education and can earn 8.50% annually, how much should you invest today?

A. $147,465.44
B. $47,062.38
C. $70,329.67
D. $543,958.86

2. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. There's not enough information to answer this question.
B. It will go down.
C. It will not change.
D. It will go up.

3. What does a negative calculated rate of return indicate about an investment?

A. The calculation is incorrect.
B. The investment has gained value over time.
C. The investment is low risk.
D. The investment has lost value over time.

4. A potential investment of $3,400,000 is projected to generate cash flows of $300,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.25% and 10.00%?

A. $6,181
B. $398,657
C. $11,214
D. $138,000

5. Calculate the absolute difference in dollars between the future values of two identical investments of $2,000 over 2 years at an annual rate of 4.90%, with one compounded annually and the other compounded quarterly.

A. $4.68
B. $3.97
C. $3.81
D. $4,405.41

6. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,200 is invested for 5 years at an annual rate of 6.20%.

A. $25.17
B. $115.14
C. $2,971.98
D. $714.55

7. You want to open a McDonald's franchise. The upfront cost is $3,000,000, but you are expected to generate $420,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 11.1%
B. 7.3%
C. 20.7%
D. 14.0%

8. If an investment of $14,000 compounds at 6.50% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.60% for the next 5 years?

A. $15,318.55
B. $15,157.16
C. $24,017.87
D. $14,077.89

9. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. There's not enough information to tell.
C. Neither project, as the company is facing capital constraints.
D. Either project, as they both have the same NPVs.

10. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,050,000
B. $1,500,000
C. $700,000
D. $875,000

11. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV will always be positive regardless of the discount rate used.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

12. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value remains the same.
B. The present value increases.
C. The present value fluctuates randomly.
D. The present value decreases.

13. An investment of $6,600 grows to $11,800 in 12 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,800?

A. $378.04
B. $9,296.97
C. $2,943.95
D. $83.28

14. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the target amount.
B. Decreasing the interest rate.
C. Withdrawing money periodically.
D. Increasing the periodic contribution amount.

15. If $1,050 grows to $1,500 in 7 years, what is the implied annual growth rate?

A. -5.23%
B. 5.23%
C. -11.40%
D. 42.86%

16. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Proceed with Project B, but not Project A.
D. Proceed with both projects as the combined NPV meets the required rate of return.

17. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By shortening the project's time horizon.
B. By using a higher discount rate than the average project.
C. By increasing the initial investment amount.
D. By reducing the expected cash flows.

18. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. IRR cannot be used for mutually exclusive projects.
C. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
D. NPV usually gives a higher value than IRR.

19. Calculate the Net Present Value (NPV) given an initial investment of $440,000, Year 1 cash flow of $270,000, Year 2 cash flow of $250,000, Year 3 cash flow of $190,000, and a required rate of return of 12.50%.

A. $1,010,974
B. $450,684
C. $570,974
D. $130,974

20. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. The effect depends on the initial investment amount.
C. More frequent compounding results in a higher future value.
D. Less frequent compounding results in a higher future value.

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Form #10

Student ID:

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Full Name ↓
(BLOCK LETTERS)

Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV usually gives a higher value than IRR.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

2. If an investment of $13,000 compounds at 6.60% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.70% for the next 6 years?

A. $14,481.26
B. $14,290.39
C. $13,088.41
D. $25,128.51

3. If you need $140,000 in 15 years for a child's education and can earn 8.00% annually, how much should you invest today?

A. $63,636.36
B. $444,103.68
C. $44,133.84
D. $129,629.63

4. You want to open a McDonald's franchise. The upfront cost is $2,400,000, but you are expected to generate $350,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 21.3%
B. 14.6%
C. 7.9%
D. 11.9%

5. Calculate the Net Present Value (NPV) given an initial investment of $410,000, Year 1 cash flow of $250,000, Year 2 cash flow of $220,000, Year 3 cash flow of $170,000, and a required rate of return of 10.25%.

A. $124,609
B. $944,609
C. $360,853
D. $534,609

6. An investment of $7,000 grows to $12,300 in 11 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $12,300?

A. $89.14
B. $2,987.43
C. $414.85
D. $9,312.86

7. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The investment is low risk.
D. The calculation is incorrect.

8. Calculate the absolute difference in dollars between the future values of two identical investments of $2,900 over 5 years at an annual rate of 6.90%, with one compounded annually and the other compounded quarterly.

A. $42.30
B. $35.46
C. $34.31
D. $8,131.17

9. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with Project B, but not Project A.
D. Proceed with both projects as the combined NPV meets the required rate of return.

10. If $1,100 grows to $1,500 in 8 years, what is the implied annual growth rate?

A. -11.88%
B. 3.95%
C. -3.95%
D. 36.36%

11. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go up.
C. There's not enough information to answer this question.
D. It will go down.

12. A potential investment of $2,900,000 is projected to generate cash flows of $280,000 annually for the next 7 years. What's the absolute difference in NPV between a discount rate of 4.00% and 8.75%?

A. $259,449
B. $93,100
C. $8,517
D. $3,710

13. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,425,000
B. $975,000
C. $825,000
D. $650,000

14. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. More frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

15. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By using a higher discount rate than the average project.
B. By shortening the project's time horizon.
C. By increasing the initial investment amount.
D. By reducing the expected cash flows.

16. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the target amount.
B. Decreasing the interest rate.
C. Withdrawing money periodically.
D. Increasing the periodic contribution amount.

17. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

18. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Neither project, as the company is facing capital constraints.
B. Either project, as they both have the same NPVs.
C. There's not enough information to tell.
D. Project A, because it generates the same NPV with a lower upfront investment.

19. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,200 is invested for 5 years at an annual rate of 6.30%.

A. $2,985.99
B. $727.63
C. $26.09
D. $119.09

20. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value increases.
B. The present value remains the same.
C. The present value decreases.
D. The present value fluctuates randomly.

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Form #11

Student ID:

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Full Name ↓
(BLOCK LETTERS)

Instructions:
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- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

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Instructions

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After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment is low risk.
C. The investment has gained value over time.
D. The calculation is incorrect.

2. Calculate the absolute difference in dollars between the future values of two identical investments of $2,600 over 10 years at an annual rate of 9.90%, with one compounded annually and the other compounded quarterly.

A. $230.71
B. $237.44
C. $286.17
D. $13,596.05

3. Calculate the Net Present Value (NPV) given an initial investment of $350,000, Year 1 cash flow of $230,000, Year 2 cash flow of $180,000, Year 3 cash flow of $130,000, and a required rate of return of 8.75%.

A. $464,772
B. $280,201
C. $114,772
D. $814,772

4. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with both projects as the combined NPV meets the required rate of return.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Don't pursue either project as they are dependent, and Project A has a negative NPV.
D. Proceed with Project B, but not Project A.

5. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,700 is invested for 4 years at an annual rate of 5.30%.

A. $10.39
B. $359.84
C. $2,090.08
D. $40.07

6. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value increases.
B. The present value remains the same.
C. The present value fluctuates randomly.
D. The present value decreases.

7. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

8. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. There's not enough information to answer this question.
C. It will go down.
D. It will not change.

9. An investment of $5,000 grows to $9,700 in 8 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $9,700?

A. $134.00
B. $558.65
C. $9,118.00
D. $2,687.87

10. If $1,050 grows to $1,500 in 7 years, what is the implied annual growth rate?

A. -11.40%
B. -5.23%
C. 42.86%
D. 5.23%

11. If you need $90,000 in 8 years for a child's education and can earn 5.25% annually, how much should you invest today?

A. $85,510.69
B. $135,524.98
C. $63,380.28
D. $59,767.58

12. If an investment of $12,000 compounds at 6.50% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.90% for the next 6 years?

A. $12,066.65
B. $11,585.82
C. $20,569.92
D. $11,419.91

13. How does the frequency of compounding affect the future value of an investment?

A. More frequent compounding results in a higher future value.
B. Less frequent compounding results in a higher future value.
C. Compounding frequency has no effect on future value.
D. The effect depends on the initial investment amount.

14. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
B. IRR is complicated and difficult to calculate.
C. NPV usually gives a higher value than IRR.
D. IRR cannot be used for mutually exclusive projects.

15. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,425,000
B. $975,000
C. $825,000
D. $650,000

16. A potential investment of $2,700,000 is projected to generate cash flows of $280,000 annually for the next 7 years. What's the absolute difference in NPV between a discount rate of 3.25% and 9.25%?

A. $4,686
B. $330,677
C. $10,735
D. $117,600

17. You want to open a McDonald's franchise. The upfront cost is $2,700,000, but you are expected to generate $400,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 21.5%
B. 12.2%
C. 14.8%
D. 8.1%

18. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Either project, as they both have the same NPVs.
C. Neither project, as the company is facing capital constraints.
D. Project A, because it generates the same NPV with a lower upfront investment.

19. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Decreasing the interest rate.
B. Withdrawing money periodically.
C. Increasing the periodic contribution amount.
D. Increasing the target amount.

20. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By using a higher discount rate than the average project.
B. By shortening the project's time horizon.
C. By increasing the initial investment amount.
D. By reducing the expected cash flows.

Form #12

Student ID:

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Full Name ↓
(BLOCK LETTERS)

Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go down.
C. It will go up.
D. There's not enough information to answer this question.

2. Calculate the absolute difference in dollars between the future values of two identical investments of $3,400 over 5 years at an annual rate of 5.90%, with one compounded annually and the other compounded quarterly.

A. $9,085.35
B. $34.78
C. $28.26
D. $29.34

3. A potential investment of $1,100,000 is projected to generate cash flows of $250,000 annually for the next 5 years. What's the absolute difference in NPV between a discount rate of 2.00% and 7.50%?

A. $68,750
B. $8,752
C. $2,058
D. $166,894

4. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $700,000
B. $875,000
C. $1,525,000
D. $1,050,000

5. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By reducing the expected cash flows.
C. By using a higher discount rate than the average project.
D. By shortening the project's time horizon.

6. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value remains the same.
C. The present value fluctuates randomly.
D. The present value increases.

7. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Increasing the target amount.
C. Decreasing the interest rate.
D. Withdrawing money periodically.

8. An investment of $5,100 grows to $9,600 in 7 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $9,600?

A. $2,552.71
B. $8,470.59
C. $138.11
D. $598.57

9. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. There's not enough information to tell.
C. Neither project, as the company is facing capital constraints.
D. Project A, because it generates the same NPV with a lower upfront investment.

10. If $1,000 grows to $1,450 in 5 years, what is the implied annual growth rate?

A. 7.71%
B. -7.71%
C. 45.00%
D. -14.76%

11. Calculate the Net Present Value (NPV) given an initial investment of $310,000, Year 1 cash flow of $220,000, Year 2 cash flow of $190,000, Year 3 cash flow of $130,000, and a required rate of return of 8.50%.

A. $775,940
B. $318,420
C. $155,940
D. $465,940

12. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV will always be positive regardless of the discount rate used.

13. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,100 is invested for 5 years at an annual rate of 6.30%.

A. $113.67
B. $694.56
C. $2,850.27
D. $24.91

14. How does the frequency of compounding affect the future value of an investment?

A. The effect depends on the initial investment amount.
B. Less frequent compounding results in a higher future value.
C. More frequent compounding results in a higher future value.
D. Compounding frequency has no effect on future value.

15. If an investment of $15,000 compounds at 8.20% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.40% for the next 6 years?

A. $31,164.33
B. $15,113.79
C. $18,373.94
D. $18,588.82

16. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with Project B, but not Project A.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with both projects as the combined NPV meets the required rate of return.

17. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV usually gives a higher value than IRR.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

18. You want to open a McDonald's franchise. The upfront cost is $2,800,000, but you are expected to generate $390,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 20.6%
B. 7.3%
C. 13.9%
D. 11.0%

19. What does a negative calculated rate of return indicate about an investment?

A. The investment has gained value over time.
B. The investment is low risk.
C. The investment has lost value over time.
D. The calculation is incorrect.

20. If you need $110,000 in 11 years for a child's education and can earn 6.50% annually, how much should you invest today?

A. $64,139.94
B. $103,286.38
C. $55,023.35
D. $219,906.65

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Form #13

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Mid-Term Exam

Introduction

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Good luck!

[This is an example introduction page, written by the instructor]

1. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. It will not change.
C. It will go up.
D. There's not enough information to answer this question.

2. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Decreasing the interest rate.
B. Withdrawing money periodically.
C. Increasing the target amount.
D. Increasing the periodic contribution amount.

3. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By shortening the project's time horizon.
B. By reducing the expected cash flows.
C. By increasing the initial investment amount.
D. By using a higher discount rate than the average project.

4. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,000 is invested for 5 years at an annual rate of 6.30%.

A. $108.26
B. $23.72
C. $2,714.54
D. $661.49

5. Calculate the Net Present Value (NPV) given an initial investment of $330,000, Year 1 cash flow of $210,000, Year 2 cash flow of $210,000, Year 3 cash flow of $140,000, and a required rate of return of 9.25%.

A. $332,626
B. $805,530
C. $145,530
D. $475,530

6. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The calculation is incorrect.
D. The investment is low risk.

7. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value increases.
C. The present value remains the same.
D. The present value decreases.

8. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. Either project, as they both have the same NPVs.
C. There's not enough information to tell.
D. Neither project, as the company is facing capital constraints.

9. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Proceed with both projects as the combined NPV meets the required rate of return.
C. Don't pursue either project as they are dependent, and Project A has a negative NPV.
D. Proceed with Project B, but not Project A.

10. An investment of $5,200 grows to $9,700 in 7 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $9,700?

A. $593.66
B. $2,548.43
C. $8,394.23
D. $135.55

11. If an investment of $10,000 compounds at 7.00% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.60% for the next 6 years?

A. $10,708.50
B. $18,369.99
C. $10,062.78
D. $10,573.27

12. Calculate the absolute difference in dollars between the future values of two identical investments of $4,200 over 7 years at an annual rate of 7.50%, with one compounded annually and the other compounded quarterly.

A. $114.24
B. $14,033.50
C. $120.33
D. $97.49

13. If you need $100,000 in 8 years for a child's education and can earn 5.00% annually, how much should you invest today?

A. $147,745.54
B. $95,238.10
C. $71,428.57
D. $67,683.94

14. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. The effect depends on the initial investment amount.
C. Compounding frequency has no effect on future value.
D. More frequent compounding results in a higher future value.

15. If $1,150 grows to $1,550 in 10 years, what is the implied annual growth rate?

A. -10.02%
B. 34.78%
C. -3.03%
D. 3.03%

16. You want to open a McDonald's franchise. The upfront cost is $2,600,000, but you are expected to generate $370,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.6%
B. 14.2%
C. 20.9%
D. 11.4%

17. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. NPV usually gives a higher value than IRR.
D. IRR cannot be used for mutually exclusive projects.

18. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,050,000
B. $1,525,000
C. $700,000
D. $875,000

19. A potential investment of $1,800,000 is projected to generate cash flows of $270,000 annually for the next 6 years. What's the absolute difference in NPV between a discount rate of 3.00% and 7.25%?

A. $7,241
B. $68,850
C. $2,403
D. $185,549

20. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

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Form #14

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Good luck!

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1. A potential investment of $2,400,000 is projected to generate cash flows of $290,000 annually for the next 7 years. What's the absolute difference in NPV between a discount rate of 3.00% and 9.25%?

A. $126,875
B. $359,389
C. $5,056
D. $11,558

2. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $550,000, Project X: $475,000, Project Y: $375,000, and Project Z: $200,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $925,000
B. $1,600,000
C. $1,125,000
D. $750,000

3. If an investment of $11,000 compounds at 7.80% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.50% for the next 5 years?

A. $21,512.29
B. $11,076.47
C. $13,712.67
D. $13,852.36

4. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value increases.
C. The present value remains the same.
D. The present value fluctuates randomly.

5. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV will always be positive regardless of the discount rate used.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

6. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By shortening the project's time horizon.
C. By increasing the initial investment amount.
D. By using a higher discount rate than the average project.

7. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
B. IRR is complicated and difficult to calculate.
C. IRR cannot be used for mutually exclusive projects.
D. NPV usually gives a higher value than IRR.

8. An investment of $6,000 grows to $10,200 in 9 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,200?

A. $7,140.00
B. $2,346.31
C. $392.24
D. $80.08

9. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go down.
C. It will go up.
D. There's not enough information to answer this question.

10. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,800 is invested for 5 years at an annual rate of 5.60%.

A. $2,363.70
B. $521.30
C. $16.38
D. $76.08

11. You want to open a McDonald's franchise. The upfront cost is $2,400,000, but you are expected to generate $350,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.9%
B. 21.3%
C. 11.9%
D. 14.6%

12. If $1,150 grows to $1,550 in 10 years, what is the implied annual growth rate?

A. -3.03%
B. 34.78%
C. -10.02%
D. 3.03%

13. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment is low risk.
C. The investment has gained value over time.
D. The calculation is incorrect.

14. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. Neither project, as the company is facing capital constraints.
C. There's not enough information to tell.
D. Project A, because it generates the same NPV with a lower upfront investment.

15. If you need $160,000 in 15 years for a child's education and can earn 7.75% annually, how much should you invest today?

A. $73,988.44
B. $490,206.61
C. $148,491.88
D. $52,222.88

16. Calculate the absolute difference in dollars between the future values of two identical investments of $5,000 over 8 years at an annual rate of 9.90%, with one compounded annually and the other compounded quarterly.

A. $21,573.35
B. $300.84
C. $362.99
D. $292.87

17. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Proceed with both projects as the combined NPV meets the required rate of return.
D. Proceed with Project B, but not Project A.

18. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. Less frequent compounding results in a higher future value.
C. The effect depends on the initial investment amount.
D. More frequent compounding results in a higher future value.

19. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Withdrawing money periodically.
C. Increasing the target amount.
D. Decreasing the interest rate.

20. Calculate the Net Present Value (NPV) given an initial investment of $380,000, Year 1 cash flow of $240,000, Year 2 cash flow of $220,000, Year 3 cash flow of $160,000, and a required rate of return of 10.50%.

A. $369,703
B. $135,957
C. $895,957
D. $515,957

Form #15

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
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After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Withdrawing money periodically.
B. Increasing the periodic contribution amount.
C. Increasing the target amount.
D. Decreasing the interest rate.

2. If $950 grows to $1,400 in 4 years, what is the implied annual growth rate?

A. 10.18%
B. 47.37%
C. -10.18%
D. -17.04%

3. If an investment of $14,000 compounds at 6.20% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.50% for the next 6 years?

A. $14,347.32
B. $24,629.09
C. $14,081.41
D. $14,522.88

4. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By increasing the initial investment amount.
C. By using a higher discount rate than the average project.
D. By shortening the project's time horizon.

5. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
C. IRR cannot be used for mutually exclusive projects.
D. NPV usually gives a higher value than IRR.

6. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,525,000
B. $875,000
C. $1,050,000
D. $700,000

7. A potential investment of $1,400,000 is projected to generate cash flows of $270,000 annually for the next 5 years. What's the absolute difference in NPV between a discount rate of 2.25% and 8.00%?

A. $9,924
B. $77,625
C. $185,420
D. $2,323

8. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. Less frequent compounding results in a higher future value.
C. More frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

9. If you need $90,000 in 9 years for a child's education and can earn 5.25% annually, how much should you invest today?

A. $85,510.69
B. $56,786.30
C. $142,640.04
D. $61,120.54

10. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Neither project, as the company is facing capital constraints.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. There's not enough information to tell.
D. Either project, as they both have the same NPVs.

11. An investment of $6,700 grows to $11,700 in 12 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,700?

A. $8,731.34
B. $2,817.48
C. $355.98
D. $75.99

12. You want to open a McDonald's franchise. The upfront cost is $3,000,000, but you are expected to generate $430,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 21.0%
B. 14.3%
C. 11.6%
D. 7.7%

13. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,200 is invested for 6 years at an annual rate of 6.50%.

A. $3,210.11
B. $35.83
C. $187.94
D. $937.64

14. Calculate the Net Present Value (NPV) given an initial investment of $360,000, Year 1 cash flow of $210,000, Year 2 cash flow of $200,000, Year 3 cash flow of $130,000, and a required rate of return of 8.75%.

A. $103,292
B. $463,292
C. $823,292
D. $272,104

15. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. It will go up.
C. There's not enough information to answer this question.
D. It will not change.

16. Calculate the absolute difference in dollars between the future values of two identical investments of $2,500 over 2 years at an annual rate of 5.30%, with one compounded annually and the other compounded quarterly.

A. $4.97
B. $6.88
C. $5,549.64
D. $5.60

17. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV will always be positive regardless of the discount rate used.

18. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The investment is low risk.
D. The calculation is incorrect.

19. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value increases.
C. The present value remains the same.
D. The present value decreases.

20. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Proceed with both projects as the combined NPV meets the required rate of return.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with Project B, but not Project A.

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Form #16

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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Good luck!

[This is an example introduction page, written by the instructor]

1. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. NPV usually gives a higher value than IRR.
B. IRR is complicated and difficult to calculate.
C. IRR cannot be used for mutually exclusive projects.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

2. An investment of $6,000 grows to $10,100 in 9 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,100?

A. $76.37
B. $379.47
C. $2,286.03
D. $6,901.67

3. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By using a higher discount rate than the average project.
C. By reducing the expected cash flows.
D. By shortening the project's time horizon.

4. If $1,200 grows to $1,550 in 10 years, what is the implied annual growth rate?

A. -2.59%
B. 29.17%
C. 2.59%
D. -11.59%

5. You want to open a McDonald's franchise. The upfront cost is $3,000,000, but you are expected to generate $410,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 10.7%
B. 13.7%
C. 20.3%
D. 7.0%

6. Calculate the absolute difference in dollars between the future values of two identical investments of $2,200 over 2 years at an annual rate of 4.90%, with one compounded annually and the other compounded quarterly.

A. $4.37
B. $4.19
C. $5.15
D. $4,845.96

7. A potential investment of $4,100,000 is projected to generate cash flows of $350,000 annually for the next 10 years. What's the absolute difference in NPV between a discount rate of 5.00% and 10.75%?

A. $619,589
B. $13,482
C. $10,999
D. $201,250

8. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV will always be positive regardless of the discount rate used.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

9. If an investment of $15,000 compounds at 8.40% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.30% for the next 6 years?

A. $15,114.70
B. $18,904.32
C. $18,695.56
D. $31,330.90

10. If you need $140,000 in 13 years for a child's education and can earn 7.00% annually, how much should you invest today?

A. $337,378.30
B. $130,841.12
C. $58,095.02
D. $73,298.43

11. What does a negative calculated rate of return indicate about an investment?

A. The investment has gained value over time.
B. The investment has lost value over time.
C. The calculation is incorrect.
D. The investment is low risk.

12. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Withdrawing money periodically.
C. Decreasing the interest rate.
D. Increasing the target amount.

13. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with Project B, but not Project A.
B. Proceed with both projects as the combined NPV meets the required rate of return.
C. Don't pursue either project as they are dependent, and Project A has a negative NPV.
D. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.

14. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,400 is invested for 6 years at an annual rate of 6.60%.

A. $211.82
B. $40.50
C. $3,521.72
D. $1,041.42

15. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $650,000
B. $975,000
C. $825,000
D. $1,425,000

16. Calculate the Net Present Value (NPV) given an initial investment of $500,000, Year 1 cash flow of $300,000, Year 2 cash flow of $280,000, Year 3 cash flow of $200,000, and a required rate of return of 12.50%.

A. $128,368
B. $476,641
C. $628,368
D. $1,128,368

17. How does the frequency of compounding affect the future value of an investment?

A. Compounding frequency has no effect on future value.
B. More frequent compounding results in a higher future value.
C. The effect depends on the initial investment amount.
D. Less frequent compounding results in a higher future value.

18. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value fluctuates randomly.
B. The present value remains the same.
C. The present value decreases.
D. The present value increases.

19. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. There's not enough information to tell.
C. Either project, as they both have the same NPVs.
D. Neither project, as the company is facing capital constraints.

20. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will not change.
B. It will go down.
C. There's not enough information to answer this question.
D. It will go up.

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Form #17

Student ID:

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Instructions:
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- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

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Instructions

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After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. If $1,050 grows to $1,450 in 5 years, what is the implied annual growth rate?

A. 6.67%
B. -17.55%
C. -6.67%
D. 38.10%

2. A potential investment of $3,200,000 is projected to generate cash flows of $300,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.50% and 9.75%?

A. $363,617
B. $5,643
C. $126,000
D. $10,240

3. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Project A, because it generates the same NPV with a lower upfront investment.
B. Either project, as they both have the same NPVs.
C. There's not enough information to tell.
D. Neither project, as the company is facing capital constraints.

4. If an investment of $13,000 compounds at 6.00% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.80% for the next 6 years?

A. $13,068.80
B. $12,387.94
C. $12,217.67
D. $21,743.75

5. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. NPV usually gives a higher value than IRR.
C. IRR cannot be used for mutually exclusive projects.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

6. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $475,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,525,000
B. $700,000
C. $875,000
D. $1,050,000

7. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. More frequent compounding results in a higher future value.
C. The effect depends on the initial investment amount.
D. Compounding frequency has no effect on future value.

8. If you need $130,000 in 12 years for a child's education and can earn 7.50% annually, how much should you invest today?

A. $68,421.05
B. $120,930.23
C. $309,631.35
D. $54,581.04

9. You want to open a McDonald's franchise. The upfront cost is $2,600,000, but you are expected to generate $380,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 21.3%
B. 7.9%
C. 14.6%
D. 11.9%

10. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV will always be positive regardless of the discount rate used.

11. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By shortening the project's time horizon.
B. By using a higher discount rate than the average project.
C. By reducing the expected cash flows.
D. By increasing the initial investment amount.

12. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Increasing the target amount.
C. Decreasing the interest rate.
D. Withdrawing money periodically.

13. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with both projects as the combined NPV meets the required rate of return.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Don't pursue either project as they are dependent, and Project A has a negative NPV.
D. Proceed with Project B, but not Project A.

14. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,900 is invested for 5 years at an annual rate of 5.80%.

A. $572.37
B. $86.44
C. $18.71
D. $2,518.73

15. An investment of $6,300 grows to $11,000 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,000?

A. $8,206.35
B. $85.75
C. $2,642.96
D. $403.45

16. Calculate the Net Present Value (NPV) given an initial investment of $510,000, Year 1 cash flow of $310,000, Year 2 cash flow of $290,000, Year 3 cash flow of $220,000, and a required rate of return of 13.00%.

A. $143,920
B. $653,920
C. $528,038
D. $1,163,920

17. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The calculation is incorrect.
D. The investment is low risk.

18. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value fluctuates randomly.
C. The present value increases.
D. The present value remains the same.

19. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. It will not change.
C. It will go up.
D. There's not enough information to answer this question.

20. Calculate the absolute difference in dollars between the future values of two identical investments of $3,800 over 6 years at an annual rate of 7.90%, with one compounded annually and the other compounded quarterly.

A. $98.17
B. $79.51
C. $81.94
D. $12,072.91

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Form #18

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Full Name ↓
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- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

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After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. What does a negative calculated rate of return indicate about an investment?

A. The investment is low risk.
B. The investment has lost value over time.
C. The investment has gained value over time.
D. The calculation is incorrect.

2. If you need $110,000 in 11 years for a child's education and can earn 6.75% annually, how much should you invest today?

A. $53,622.36
B. $103,044.50
C. $225,652.11
D. $63,127.69

3. If $1,050 grows to $1,500 in 8 years, what is the implied annual growth rate?

A. -10.05%
B. 4.56%
C. 42.86%
D. -4.56%

4. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR is complicated and difficult to calculate.
B. IRR cannot be used for mutually exclusive projects.
C. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
D. NPV usually gives a higher value than IRR.

5. Calculate the absolute difference in dollars between the future values of two identical investments of $2,900 over 4 years at an annual rate of 6.50%, with one compounded annually and the other compounded quarterly.

A. $7,484.00
B. $26.49
C. $22.49
D. $27.71

6. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with both projects as the combined NPV meets the required rate of return.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with Project B, but not Project A.

7. If an investment of $15,000 compounds at 6.50% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.40% for the next 6 years?

A. $15,078.78
B. $14,903.45
C. $24,985.77
D. $14,731.16

8. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,050,000
B. $1,500,000
C. $875,000
D. $700,000

9. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. More frequent compounding results in a higher future value.
C. Compounding frequency has no effect on future value.
D. The effect depends on the initial investment amount.

10. You want to open a McDonald's franchise. The upfront cost is $2,800,000, but you are expected to generate $400,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.6%
B. 21.0%
C. 14.3%
D. 11.5%

11. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. There's not enough information to answer this question.
B. It will go up.
C. It will go down.
D. It will not change.

12. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. Neither project, as the company is facing capital constraints.
C. Project A, because it generates the same NPV with a lower upfront investment.
D. There's not enough information to tell.

13. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value remains the same.
C. The present value fluctuates randomly.
D. The present value increases.

14. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,300 is invested for 6 years at an annual rate of 6.50%.

A. $37.46
B. $196.48
C. $980.26
D. $3,356.03

15. An investment of $5,800 grows to $10,600 in 9 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,600?

A. $107.58
B. $478.57
C. $8,772.41
D. $2,719.39

16. Calculate the Net Present Value (NPV) given an initial investment of $370,000, Year 1 cash flow of $230,000, Year 2 cash flow of $220,000, Year 3 cash flow of $160,000, and a required rate of return of 9.75%.

A. $513,248
B. $143,248
C. $358,928
D. $883,248

17. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Withdrawing money periodically.
B. Increasing the periodic contribution amount.
C. Increasing the target amount.
D. Decreasing the interest rate.

18. A potential investment of $4,900,000 is projected to generate cash flows of $350,000 annually for the next 9 years. What's the absolute difference in NPV between a discount rate of 5.50% and 10.75%?

A. $12,254
B. $476,325
C. $165,375
D. $8,220

19. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By using a higher discount rate than the average project.
C. By shortening the project's time horizon.
D. By reducing the expected cash flows.

20. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV will always be positive regardless of the discount rate used.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV would be the same if all negative cash flows occurred in Year 0.

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Form #19

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- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
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- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. Project A, because it generates the same NPV with a lower upfront investment.
C. Neither project, as the company is facing capital constraints.
D. There's not enough information to tell.

2. An investment of $6,700 grows to $12,200 in 12 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $12,200?

A. $91.63
B. $406.37
C. $10,014.93
D. $3,125.09

3. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $500,000, Project X: $450,000, Project Y: $325,000, and Project Z: $150,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $975,000
B. $1,425,000
C. $650,000
D. $825,000

4. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value remains the same.
B. The present value fluctuates randomly.
C. The present value increases.
D. The present value decreases.

5. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Decreasing the interest rate.
B. Withdrawing money periodically.
C. Increasing the target amount.
D. Increasing the periodic contribution amount.

6. A potential investment of $2,000,000 is projected to generate cash flows of $300,000 annually for the next 7 years. What's the absolute difference in NPV between a discount rate of 3.25% and 9.50%?

A. $366,716
B. $5,230
C. $12,004
D. $131,250

7. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
B. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV would be the same if all negative cash flows occurred in Year 0.

8. Calculate the absolute difference in dollars between the future values of two identical investments of $4,900 over 9 years at an annual rate of 9.10%, with one compounded annually and the other compounded quarterly.

A. $349.57
B. $21,743.27
C. $282.33
D. $274.02

9. If $1,150 grows to $1,550 in 10 years, what is the implied annual growth rate?

A. 3.03%
B. 34.78%
C. -10.02%
D. -3.03%

10. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. NPV usually gives a higher value than IRR.
C. IRR is complicated and difficult to calculate.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

11. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with Project B, but not Project A.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with both projects as the combined NPV meets the required rate of return.

12. How does the frequency of compounding affect the future value of an investment?

A. More frequent compounding results in a higher future value.
B. Less frequent compounding results in a higher future value.
C. The effect depends on the initial investment amount.
D. Compounding frequency has no effect on future value.

13. Calculate the Net Present Value (NPV) given an initial investment of $390,000, Year 1 cash flow of $250,000, Year 2 cash flow of $210,000, Year 3 cash flow of $160,000, and a required rate of return of 10.25%.

A. $355,297
B. $908,919
C. $128,919
D. $518,919

14. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By reducing the expected cash flows.
B. By increasing the initial investment amount.
C. By using a higher discount rate than the average project.
D. By shortening the project's time horizon.

15. If an investment of $13,000 compounds at 6.60% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.60% for the next 5 years?

A. $15,074.00
B. $23,886.09
C. $13,081.61
D. $15,234.50

16. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The calculation is incorrect.
D. The investment is low risk.

17. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,200 is invested for 5 years at an annual rate of 6.40%.

A. $740.77
B. $3,000.07
C. $123.11
D. $27.04

18. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. There's not enough information to answer this question.
C. It will not change.
D. It will go up.

19. If you need $100,000 in 9 years for a child's education and can earn 5.00% annually, how much should you invest today?

A. $68,965.52
B. $155,132.82
C. $64,460.89
D. $95,238.10

20. You want to open a McDonald's franchise. The upfront cost is $2,600,000, but you are expected to generate $380,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 7.9%
B. 11.9%
C. 21.3%
D. 14.6%

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Form #20

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Full Name ↓
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Mid-Term Exam

Introduction

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After the Exam

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Good luck!

[This is an example introduction page, written by the instructor]

1. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $1,800 is invested for 5 years at an annual rate of 5.70%.

A. $78.96
B. $2,374.91
C. $17.05
D. $531.75

2. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Withdrawing money periodically.
C. Decreasing the interest rate.
D. Increasing the target amount.

3. Calculate the absolute difference in dollars between the future values of two identical investments of $4,000 over 8 years at an annual rate of 7.30%, with one compounded annually and the other compounded quarterly.

A. $106.70
B. $14,163.54
C. $96.11
D. $131.69

4. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. There's not enough information to answer this question.
C. It will not change.
D. It will go down.

5. If you need $150,000 in 14 years for a child's education and can earn 7.75% annually, how much should you invest today?

A. $426,513.87
B. $139,211.14
C. $52,753.27
D. $71,942.45

6. If an investment of $14,000 compounds at 6.70% annually for 5 years, what would be its value if the interest rate suddenly drops to 4.50% for the next 5 years?

A. $15,537.05
B. $14,078.60
C. $24,128.57
D. $15,380.38

7. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By shortening the project's time horizon.
B. By increasing the initial investment amount.
C. By reducing the expected cash flows.
D. By using a higher discount rate than the average project.

8. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Don't pursue either project as they are dependent, and Project A has a negative NPV.
B. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
C. Proceed with Project B, but not Project A.
D. Proceed with both projects as the combined NPV meets the required rate of return.

9. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. Compounding frequency has no effect on future value.
C. More frequent compounding results in a higher future value.
D. The effect depends on the initial investment amount.

10. If $1,200 grows to $1,550 in 9 years, what is the implied annual growth rate?

A. 2.88%
B. 29.17%
C. -2.88%
D. -12.79%

11. An investment of $6,000 grows to $10,800 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,800?

A. $93.67
B. $423.43
C. $8,640.00
D. $2,715.32

12. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $550,000, Project X: $475,000, Project Y: $375,000, and Project Z: $200,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $1,125,000
B. $925,000
C. $750,000
D. $1,600,000

13. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
D. NPV usually gives a higher value than IRR.

14. Calculate the Net Present Value (NPV) given an initial investment of $470,000, Year 1 cash flow of $290,000, Year 2 cash flow of $240,000, Year 3 cash flow of $170,000, and a required rate of return of 12.25%.

A. $1,039,023
B. $398,367
C. $569,023
D. $99,023

15. What does a negative calculated rate of return indicate about an investment?

A. The calculation is incorrect.
B. The investment is low risk.
C. The investment has lost value over time.
D. The investment has gained value over time.

16. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value decreases.
B. The present value increases.
C. The present value fluctuates randomly.
D. The present value remains the same.

17. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. There's not enough information to tell.
C. Neither project, as the company is facing capital constraints.
D. Project A, because it generates the same NPV with a lower upfront investment.

18. You want to open a McDonald's franchise. The upfront cost is $2,700,000, but you are expected to generate $390,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 14.4%
B. 7.8%
C. 21.1%
D. 11.7%

19. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV would be the same if all negative cash flows occurred in Year 0.
B. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
C. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
D. The project's NPV will always be positive regardless of the discount rate used.

20. A potential investment of $1,900,000 is projected to generate cash flows of $250,000 annually for the next 6 years. What's the absolute difference in NPV between a discount rate of 2.50% and 7.75%?

A. $78,750
B. $8,282
C. $212,494
D. $2,749

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Form #21

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value increases.
B. The present value fluctuates randomly.
C. The present value decreases.
D. The present value remains the same.

2. An investment of $6,400 grows to $11,100 in 10 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $11,100?

A. $2,639.48
B. $401.02
C. $84.45
D. $8,151.56

3. If an investment of $14,000 compounds at 8.00% annually for 6 years, what would be its value if the interest rate suddenly drops to 4.80% for the next 6 years?

A. $16,538.35
B. $16,768.83
C. $29,433.25
D. $14,107.90

4. If $1,100 grows to $1,500 in 8 years, what is the implied annual growth rate?

A. -11.88%
B. -3.95%
C. 3.95%
D. 36.36%

5. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,300 is invested for 6 years at an annual rate of 6.50%.

A. $196.48
B. $980.26
C. $3,356.03
D. $37.46

6. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $525,000, Project X: $450,000, Project Y: $350,000, and Project Z: $175,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $700,000
B. $1,050,000
C. $875,000
D. $1,500,000

7. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. More frequent compounding results in a higher future value.
C. Compounding frequency has no effect on future value.
D. The effect depends on the initial investment amount.

8. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.
B. The project's NPV would be the same if all negative cash flows occurred in Year 0.
C. The project's NPV will always be positive regardless of the discount rate used.
D. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.

9. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By shortening the project's time horizon.
C. By using a higher discount rate than the average project.
D. By reducing the expected cash flows.

10. What does a negative calculated rate of return indicate about an investment?

A. The investment is low risk.
B. The calculation is incorrect.
C. The investment has lost value over time.
D. The investment has gained value over time.

11. A potential investment of $3,200,000 is projected to generate cash flows of $320,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 4.75% and 10.50%?

A. $6,590
B. $12,066
C. $412,752
D. $147,200

12. If you need $120,000 in 10 years for a child's education and can earn 6.75% annually, how much should you invest today?

A. $62,445.68
B. $71,641.79
C. $230,600.41
D. $112,412.18

13. You want to open a McDonald's franchise. The upfront cost is $2,700,000, but you are expected to generate $400,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 12.2%
B. 21.5%
C. 14.8%
D. 8.1%

14. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go up.
B. It will go down.
C. There's not enough information to answer this question.
D. It will not change.

15. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV usually gives a higher value than IRR.
D. NPV provides a direct measure of value-added and can handle non-conventional cash flows.

16. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. There's not enough information to tell.
B. Either project, as they both have the same NPVs.
C. Project A, because it generates the same NPV with a lower upfront investment.
D. Neither project, as the company is facing capital constraints.

17. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
B. Proceed with Project B, but not Project A.
C. Don't pursue either project as they are dependent, and Project A has a negative NPV.
D. Proceed with both projects as the combined NPV meets the required rate of return.

18. Calculate the Net Present Value (NPV) given an initial investment of $380,000, Year 1 cash flow of $240,000, Year 2 cash flow of $240,000, Year 3 cash flow of $170,000, and a required rate of return of 10.50%.

A. $159,748
B. $407,616
C. $539,748
D. $919,748

19. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Decreasing the interest rate.
B. Withdrawing money periodically.
C. Increasing the target amount.
D. Increasing the periodic contribution amount.

20. Calculate the absolute difference in dollars between the future values of two identical investments of $4,000 over 6 years at an annual rate of 7.50%, with one compounded annually and the other compounded quarterly.

A. $73.96
B. $12,420.37
C. $86.25
D. $91.26

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Form #22

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Instructions:
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Mid-Term Exam

Introduction

Welcome to this mid-term exam, evaluating all of the concepts covered in this course so far.

Instructions

Please read these instruction carefully before beginning your exam.

- This exam is timed for 30 minutes.
- You may use a financial calculator.
- Once you have finished, please hand in your answer pages at the front. If you don't hand in your answer sheet, you will receive 0 points.
- Fill in the bubbles completely. You may use a pencil or pen. If you change your mind, either rub out the mistaken bubble, or put a cross through it and fill in the bubble you want.

After the Exam

Once your exam has been graded, you will be able to access your results and feedback to help you improve your learning.

Good luck!

[This is an example introduction page, written by the instructor]

1. There are two dependent projects. Project A is to build a factory, which has an NPV of -$3m. Project B starts after Project A is completed and is to buy a fleet of trucks to deliver the extra products manufactured at the new facility. Project B has an NPV of $3m. What should the financial manager do?

A. Proceed with Project B, but not Project A.
B. Don't pursue either project as they are dependent, and Project A has a negative NPV.
C. Analyze the cash flows from both projects together to determine the overall NPV of both projects before making a decision.
D. Proceed with both projects as the combined NPV meets the required rate of return.

2. How does the frequency of compounding affect the future value of an investment?

A. Less frequent compounding results in a higher future value.
B. More frequent compounding results in a higher future value.
C. The effect depends on the initial investment amount.
D. Compounding frequency has no effect on future value.

3. Why is NPV generally preferred over IRR for capital budgeting decisions?

A. IRR cannot be used for mutually exclusive projects.
B. IRR is complicated and difficult to calculate.
C. NPV provides a direct measure of value-added and can handle non-conventional cash flows.
D. NPV usually gives a higher value than IRR.

4. Determine the absolute dollar difference between the future value of two investments: one with annual compounding and one with monthly compounding, when $2,000 is invested for 5 years at an annual rate of 5.50%.

A. $81.41
B. $567.66
C. $2,613.92
D. $17.49

5. What does a negative calculated rate of return indicate about an investment?

A. The investment has lost value over time.
B. The investment has gained value over time.
C. The calculation is incorrect.
D. The investment is low risk.

6. If a project is deemed to be riskier than the company's average project, how should this be reflected in the NPV calculation?

A. By increasing the initial investment amount.
B. By reducing the expected cash flows.
C. By using a higher discount rate than the average project.
D. By shortening the project's time horizon.

7. A company is evaluating four projects: Projects W and X are mutually exclusive, Project Y is independent, and Project Z is contingent on Project Y. The NPVs are as follows: Project W: $550,000, Project X: $475,000, Project Y: $375,000, and Project Z: $200,000. Which course of action maximizes value? A. Accept only Projects W and Y B. Accept only Projects X and Y C. Accept Projects W, Y, and Z D. Accept Projects X, Y, and Z Enter the total NPV of the correct choice.

A. $750,000
B. $1,125,000
C. $1,600,000
D. $925,000

8. If $950 grows to $1,400 in 3 years, what is the implied annual growth rate?

A. 13.80%
B. -22.05%
C. -13.80%
D. 47.37%

9. A company is evaluating two mutually exclusive projects. Project A has an NPV of $1 million and requires an initial investment of $5 million. Project B also has an NPV of $1 million and requires an initial investment of $8 million. If the company is facing capital constraints, which project should it choose and why?

A. Either project, as they both have the same NPVs.
B. Neither project, as the company is facing capital constraints.
C. There's not enough information to tell.
D. Project A, because it generates the same NPV with a lower upfront investment.

10. An investment of $6,000 grows to $10,700 in 9 years with annual compounding. If the same stated annual rate were applied with semi-annual compounding, by how many dollars would the resulting amount exceed $10,700?

A. $99.91
B. $2,650.19
C. $458.40
D. $8,381.67

11. All else remaining constant, if a positive cash flow is moved further into the future, what is the resulting change to the NPV?

A. It will go down.
B. It will go up.
C. There's not enough information to answer this question.
D. It will not change.

12. A potential investment of $3,800,000 is projected to generate cash flows of $310,000 annually for the next 8 years. What's the absolute difference in NPV between a discount rate of 5.00% and 10.50%?

A. $11,206
B. $136,400
C. $6,106
D. $379,448

13. What happens to the present value of a future sum as the time to receipt increases, assuming a constant interest rate?

A. The present value remains the same.
B. The present value increases.
C. The present value decreases.
D. The present value fluctuates randomly.

14. If you need $80,000 in 9 years for a child's education and can earn 5.00% annually, how much should you invest today?

A. $76,190.48
B. $124,106.26
C. $55,172.41
D. $51,568.71

15. If an investment of $15,000 compounds at 8.30% annually for 4 years, what would be its value if the interest rate suddenly drops to 4.80% for the next 5 years?

A. $26,086.24
B. $15,086.02
C. $16,322.95
D. $16,135.77

16. Calculate the absolute difference in dollars between the future values of two identical investments of $3,500 over 7 years at an annual rate of 7.90%, with one compounded annually and the other compounded quarterly.

A. $92.29
B. $12,011.52
C. $95.20
D. $113.98

17. A real estate development firm is considering a project with the following cash flow structure: Year 0: -$50 million (initial investment), Years 1–3: -$10 million per year (additional investments), Years 4–10: $20 million per year (positive cash flows). The discount rate is 12%. Which of the following statements about this project's NPV is most accurate?

A. The project's NPV is more sensitive to changes in the initial investment than to changes in the yearly cash flows.
B. The project's NPV will always be positive regardless of the discount rate used.
C. The project's NPV would be the same if all negative cash flows occurred in Year 0.
D. The project's NPV is highly sensitive to changes in the discount rate due to its cash flow pattern.

18. Calculate the Net Present Value (NPV) given an initial investment of $410,000, Year 1 cash flow of $250,000, Year 2 cash flow of $210,000, Year 3 cash flow of $160,000, and a required rate of return of 10.25%.

A. $518,919
B. $928,919
C. $335,297
D. $108,919

19. Which factor would likely reduce the number of periods required to reach a savings goal?

A. Increasing the periodic contribution amount.
B. Increasing the target amount.
C. Decreasing the interest rate.
D. Withdrawing money periodically.

20. You want to open a McDonald's franchise. The upfront cost is $2,600,000, but you are expected to generate $370,000 of free cash each year for the next 15 years. What discount rate would result in an NPV of approximately $0?

A. 11.4%
B. 14.2%
C. 20.9%
D. 7.6%

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Form #23

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Instructions:
- Write your Student ID in the boxes, then fill in the matching bubble below each box.
- Print your full name in block letters on the line provided.
- Fill in answer bubbles completely with dark ink or pencil. Erase completely to change.

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