OTHER & TEST PAGES

1. **Unlock_all_pages**

return_url

page-locked

Mathematics of finance

1. **Amortisation**
    1. **Introduction**
    2. **Present value (P)**
    3. **Summary**
    4. **Learning objectives**
    5. **Calculate payments (R)**
        1. **Video**
        2. **Formula**
        3. **Activity**
    6. **The amortisation schedule**
        1. **SHARP**
        2. **Recap**
    7. **Period and payments**
        1. **Period and payments**
        2. **Activity**
        3. **Increase payment**
        4. **Activity (Cont.)**
    8. **Interest rate (i)**
        1. **Fixed or variable?**
        2. **Video - Part A**
        3. **Video - Part B**
        4. **Activity**
    9. **Exercise**

1. **Instructions**
2. **Exercise**

10. **Assignment**
    1. **Information**
    2. **Questions**

2. **Annuities**
    1. **Definition**
    2. **Summary**
    3. **Types**
        1. **Ordinary annuity and annuity due**
        2. **Annuity certain and perpetuity**
        3. **Examples**
    4. **Future value (S)**
        1. **Video**
        2. **Formula**
        3. **Calculate S and R**
        4. **Calculate S - Activity**
        5. **Calculate R - Activity**
    5. **Present value (P)**
        1. **Video**
        2. **Formula**
        3. **Calculate P and R**
        4. **Calculate P - Activity**
        5. **Calculate R - Activity**
    6. **Relationship between P and S**
        1. **Specific cases**
        2. **Relationship between formulas**
    7. **Exercise**

1. **Instructions**
2. **Exercise**

8. **Assignment**
    1. **Information**
    2. **Questions**
9. **Learning objectives**

3. **Compound interest**
    1. **Summary**
    2. **Learning objectives**
    3. **Simple and compound interest**
        1. **Introduction**
        2. **Example**
        3. **Simple interest amount**
        4. **Compound interest amount**
    4. **How it works**
        1. **How it works 2**
        2. **How it works 1**
        3. **Activity**
    5. **Calculate S**
        1. **Formula**
        2. **Example**
        3. **Activity**
    6. **Compounding periods**
        1. **Compounding periods**
        2. **Semi-annually**
        3. **Yearly**
        4. **Quarterly and monthly**
        5. **All together**

6. **Activity 1**
7. **Activity 2**
8. **Activity 3**

7. **Calculate P**
    1. **Calculate P**
    2. **Activity**
8. **Calculate n and i**
    1. **Calculate n and i**
    2. **Calculate n - Activity**
    3. **Calculate i - Activity**
9. **Exercise**
    1. **Instructions**
    2. **Exercise**
10. **Assignment**
    1. **Information**
    2. **Questions**

4. **Simple discount**
    1. **Summary**
    2. **Formula**
    3. **Time line**
    4. **Learning objectives**
    5. **Introduction**
        1. **Video**
        2. **Introduction**
    6. **Activities**
        1. **Activity 1**
        2. **Activity 2**
        3. **Activity 3**

7. **Simple interest vs. simple discount**
    1. **Examples of each**
    2. **Comparing**
8. **Exercise**
    1. **Instructions**
    2. **Exercise**
9. **Assignment**
    1. **Information**
    2. **Questions**

5. **Simple interest**
    1. **Summary**
    2. **Introduction**
    3. **Simple Interest Formula**
    4. **Annum and year**
    5. **Time line**
    6. **Accumulated Sum Formula**
    7. **Calculate I - Activity**
    8. **Learning objectives**
    9. **Borrowers and investors**
        1. **Borrower**
        2. **Investor**
    10. **How it works**
        1. **How it works**
        2. **The interest amount**
    11. **Calculate S**
        1. **Activity**
    12. **Calculate P**
        1. **Change Subject of Formula**

2. **Present Value**
3. **Activity 1**
4. **Activity 2**

13. **Calculate n**
    1. **Recap**
    2. **Activity 1**
    3. **Activity 2**
14. **Calculate i**
    1. **Recap**
    2. **Activity 1**
15. **Exercise**
    1. **Instructions**
    2. **Exercise**
16. **Assignment**
    1. **Information**
    2. **Questions**

6. **Time value of money**
    1. **Summary**
    2. **Introduction**
    3. **Time line**
    4. **Learning objectives**
    5. **Time and money**
        1. **Time and money**
        2. **Present and future values**
        3. **Example**
    6. **Moving repayments**
        1. **Forwards and backwards**
        2. **Rules**

3. **Recap**
4. **Activity**

7. **Replacing financial obligations**
    1. **Example**
    2. **Replacing financial obligations**
    3. **Activity 1**
    4. **Activity 2**
8. **Exercise**
    1. **Instructions**
    2. **Exercise**
9. **Assignment**
    1. **Information**
    2. **Questions**

Functions and representations of functions

1. **Definition of functions**
    1. **Graphing functions**
    2. **Summary**
    3. **Learning objectives**
    4. **Variables**
        1. **Variable**
        2. **Mathematical expressions**
        3. **Variables in expressions**
        4. **Variables in formulas**
    5. **Formula**
        1. **Definition**
        2. **Advantage**
        3. **Dependance**
        4. **Activity 1**

5. **Activity 2**
6. **Activity 3**

6. **Function**
    1. **Concept**
    2. **Name**
    3. **Examples**
    4. **A function**
    5. **Not a function**
    6. **Independent variables**
7. **Function notation**
    1. **Notation**
    2. **Example**
    3. **Activity**
8. **The Cartesian plane**
    1. **Introduction**
    2. **Axes**
    3. **Quadrants**
    4. **Direction - Activity**
    5. **Coordinates - Activity**
9. **Exercise**
    1. **Instructions**
    2. **Exercise**
10. **Assignment**
    1. **Information**
    2. **Questions**

2. **Linear functions**
    1. **Summary**
    2. **Special case: Parallel lines**

3. **Learning objectives**
4. **Characteristics**
    1. **Equation**
    2. **Values of a and b**
    3. **y-intercept**
    4. **x-intercept**
    5. **Recap**
    6. **Activity**
5. **Draw the graph**
    1. **Two points**
    2. **Video**
    3. **Activity**
6. **Slope**
    1. **Definition - Video**
    2. **Ratio of change - Video**
    3. **Negative slope - Video**
    4. **Recap**
    5. **Four cases - Activity**
    6. **3/4; 4/3 - Activity**
7. **Determine equation**
    1. **Two points**
    2. **Word problems**
    3. **Activity 1**
    4. **Activity 2**
8. **Special case: b = 0**
    1. **Example**
    2. **Recap**
    3. **Through origin**

4. **Activity**

9. **Special case: a = 0**
    1. **Horizontal**
    2. **Examples**
    3. **Slope**
    4. **Activity**
10. **Special case: Parallel to y-axis**
    1. **Video**
    2. **Examples**
    3. **Slope**
    4. **Activity**
11. **Recap - Activity**
12. **Exercise**
    1. **Instructions**
    2. **Exercise**
13. **Assignment**
    1. **Information**
    2. **Questions**

3. **Exponential and logarithmic functions**
    1. **Summary**
    2. **Learning objectives**
    3. **Exponential functions**
        1. **Equation**
        2. **Introduction**
        3. **Examples**
        4. **x > 0; x < 0**
        5. **x > 0; x < 0 - Video**
        6. **a > 1; 0 < a < 1**

7. **a > 1; 0 < a < 1 - Recap**
8. **x > 0; x < 0 - Activity**
9. **a > 1; 0 < a < 1 - Activity**

4. **Logarithmic functions**
    1. **Inverse function**
    2. **Equation**
    3. **Example**
    4. **In general**
    5. **Graph**
    6. **Activity 1**
    7. **Activity 2**
5. **Exercise**
    1. **Instructions**
    2. **Exercise**
6. **Assignment**
    1. **Information**
    2. **Questions**

4. **Quadratic functions**
    1. **Summary**
    2. **Shape of graph**
    3. **Learning objectives**
    4. **Introduction**
        1. **Practical applications**
        2. **Projectile motion**
    5. **Equation**
        1. **Equation**
        2. **Activity**
    6. **Vertex**

1. **y-coordinate**
2. **x-coordinate**
3. **Coordinates - Activity**

7. **Intercepts**
    1. **y-axis**
    2. **x-axis**
    3. **Intercepts - Activity**
8. **Discriminant**
    1. **Two x-intercepts**
    2. **One x-intercept**
    3. **No x-intercepts**
    4. **Specific cases - Activity**
    5. **Recap - Activity**
9. **Draw the graph**
    1. **Steps**
    2. **Example**
    3. **Activity**
10. **Activity - Changes in a, b and c**
11. **Slope**
    1. **Not constant**
    2. **Video**
12. **Exercise**
    1. **Instructions**
    2. **Exercise**
13. **Assignment**
    1. **Information**
    2. **Questions**

Linear systems

1. **Linear equations in one variable**
    1. **Summary**
    2. **Learning objectives**
    3. **Solve**
        1. **Video 1**
        2. **Video 2**
        3. **Examples**
        4. **Steps**
        5. **Step-by-step - Activity**
        6. **Now you try - Activity**
    4. **Word problems**
        1. **Example**
        2. **Activity**
    5. **Solve by x-intercept**
        1. **Determine x-intercept**
        2. **Activity**
    6. **Exercise**
        1. **Instructions**
        2. **Exercise**
    7. **Assignment**
        1. **Information**
        2. **Questions**
2. **Systems of linear equations in two variables**
    1. **Summary**
    2. **Learning objectives**
    3. **Systems of equations**
        1. **Introduction**
        2. **The system**

4. **Solve: Graphing**
    1. **Video**
    2. **Activity**
5. **Solve: Substitution**
    1. **Video**
    2. **Example**
    3. **Activity**
6. **Solve: Elimination**
    1. **Video 1**
    2. **Video 2**
    3. **Activity**
7. **Solve: Any method - Activity**
8. **Word problems**
    1. **Example**
    2. **Activity**
9. **Exercise**
    1. **Instructions**
    2. **Exercise**
10. **Assignment**
    1. **Information**
    2. **Questions**
3. **Linear inequalities in one variable**
    1. **Summary**
    2. **Learning objectives**
    3. **Introduction**
        1. **> and <**
        2. **"> and =" and "< and ="**
    4. **Solve**

1. **Rules 1 & 2**
2. **Rule 5**
3. **Rules 3 & 4**
4. **Example**
5. **Activity**

5. **Miscellaneous**
    1. **Four types**
    2. **Variable on right side**
    3. **Multiply or divide by variable**
    4. **Activity**
6. **Word problems**
    1. **Example**
    2. **Key words**
    3. **Activity**
7. **Exercise**
    1. **Instructions**
    2. **Exercise**
8. **Assignment**
    1. **Information**
    2. **Questions**

4. **Systems of linear inequalities in two variables**
    1. **Summary**
    2. **No solution**
    3. **Learning objectives**
    4. **Linear inequality**
        1. **Video**
        2. **Boundary line**
        3. **Activity 1 recap**

4. **Activity 1**
5. **Activity 2**

5. **Systems of two linear inequalities**
    1. **Video**
    2. **Example**
    3. **Activity 1**
    4. **Activity 2**
6. **Systems of more linear inequalities**
    1. **Example**
    2. **Activity**
7. **Word problems**
    1. **Example**
    2. **Activity**
8. **Exercise**
    1. **Instructions**
    2. **Exercise**
9. **Assignment**
    1. **Information**
    2. **Questions**

An application of differentiation

1. **Marginal cost1**
    1. **Summary**
    2. **Calculate - Non-linear function: Video**
    3. **Learning objectives**
    4. **Total, fixed and variable cost**
        1. **Introduction**
        2. **Example**
        3. **Cost as a function**

5. **Marginal cost**
    1. **Introduction**
    2. **Three methods**
6. **Calculate - Table**
    1. **Example**
    2. **Activity**
7. **Calculate - Linear function**
    1. **Linear relationship**
    2. **Slope**
    3. **Video**
    4. **Constant change**
    5. **Activity**
8. **Time for practice - Activity**
9. **Derivatives and slope**
    1. **Differentiation rules**
    2. **Activity 1**
    3. **Activity 2**
10. **Non-linear function**
    1. **Farmer example**
    2. **Farmer example (Cont.)**
    3. **Farmer recap**
    4. **Farmer activity**
11. **Exercise**
    1. **Instructions**
    2. **Exercise**
12. **Assignment**
    1. **Information**
    2. **Questions**

2. **Marginal profit**
    1. **Summary**
    2. **Learning objectives**
    3. **Profit**
        1. **Introduction**
        2. **Farmer**
        3. **Activity**
    4. **Marginal profit**
        1. **Farmer**
        2. **Farmer (Cont.)**
    5. **Marginal functions**
        1. **Video**
        2. **Recap**
        3. **Activity**
    6. **Time for practice - Activity**
    7. **Exercise**
        1. **Instructions**
        2. **Exercise**
    8. **Assignment**
        1. **Information**
        2. **Questions**

Welcome

1. **Please select here for instructions before proceeding**

Table of Contents