

Tutorial

Chapter 4: Compound Interest

Answer ALL the questions in this tutorial if you have completed learning the topic of COMPOUND INTEREST. Please attached the **PDF file** (take a picture of your solution and convert it to PDF file using **CamScanner**) for ALL questions and must be in YOUR ORIGINAL HANDWRITING. Thank you for your cooperation.

1) How much would you need to invest now, to get RM10 000 in 10 years at 8% compounded every month. (3 marks)

2) What is the interest rate compounded monthly that will make RM1000 become RM2000 in five years? (3 marks)

3) How long does it take a sum of money to double itself at 14% compounded annually? (4 marks)

4) RM10,000 was invested for 5 years. The bank offered 6% compounded monthly for the first four years and $r\%$ compounded annually for the rest of the period. If the amount in the account at the end of 5 years was RM13,975.38. Find r . (6 marks)

5) RM10,000 was invested into an account at an interest rate of 6% compounded every 3 months.

a) Find the amount at the end of 2 years. (3 marks)

b) After 2 years, the bank increases its interest rate to 8% compounded every 3 months. Find the amount in the account at the end of 5 years of investment. (3 marks)

6) Five years ago, Ali deposited RM10,000 into an account that pays 6% compounded monthly. Today he plans to add RMX into the account. Find the value of X if he plans to have RM30,000 in the account 10 years from today. (6 marks)

7) Aina deposited RMX into a saving account for 8 years. The interest rate is 4.75% compounded every 2 months for the first 2.5 years and 4.25% compounded quarterly for the rest of the period. If the accumulated amount in the saving account at the end of 8 years is RM9,515.35. Find the value of X.

(6 marks)