



EXAM PAPERS PRACTICE

GCSE Edexcel Math 1MA1

Compound Interest

Question Paper

"We will help you to

achieve A Star "



Question 1

Liam invests £6200 for 3 years in a savings account.

He gets 2.5% per annum compound interest.

How much money will Liam have in his savings account at the end of 3 years?

[3 marks]

Question 2

This notice was in a car magazine.

Most new cars lose more than half of their value
in the first three years

Paul bought a new car.

The value of the car was £15 000

In the first year, the value of the car depreciated by 23%.

After the first year, the value of the car depreciated by 18% each year.

Work out if Paul's car lost more than half of its value by the end of three years.

[4 marks]



Question 3

Derek invests £154 500 for 2 years at 4% per year compound interest.

(b) Work out the value of the investment at the end of 2 years.

[3 marks]

Question 4

The population of a city increased by 5.2% for the year 2014

At the beginning of 2015 the population of the city was 1 560 000

Lin assumes that the population will continue to increase at a constant rate of 5.2% each year.

(a) Use Lin's assumption to estimate the population of the city at the beginning of 2017
Give your answer correct to 3 significant figures.

[3 marks]



Question 5

Peter has £20 000 to invest in a savings account for 2 years.

He finds information about two savings accounts.

<p>Bonus Saver</p> <p>Compound interest</p> <p>4% for the first year then 1.5% each year</p>	<p>Fixed Rate</p> <p>Compound interest</p> <p>2.5% each year</p>
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Peter wants to have as much money as possible in his savings account at the end of 2 years.

Which of these savings accounts should he choose?

[4 marks]

Question 6

Derek buys a house for £150 000

He sells the house for £154 500

(a) Work out Derek's percentage profit.

[3 marks]



Question 7

Anil wants to invest £25 000 for 3 years in a bank.

<p>Personal Bank</p> <p>Compound Interest</p> <p>2% for each year</p>
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<p>Secure Bank</p> <p>Compound Interest</p> <p>4.3% for the first year 0.9% for each extra year</p>
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Which bank will give Anil the most interest at the end of 3 years?
You must show all your working.

[3 marks]

Question 8

Viv wants to invest £2000 for 2 years in the same bank.

<p>The International Bank</p> <p>Compound Interest</p> <p>4% for the first year 1% for each extra year</p>

<p>The Friendly Bank</p> <p>Compound Interest</p> <p>5% for the first year 0.5% for each extra year</p>
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At the end of 2 years, Viv wants to have as much money as possible.

Which bank should she invest her £2000 in?

[4 marks]



Question 9

Katie travels to work by train.

The cost of her weekly train ticket increases by 12.5% to £225

Katie's weekly pay increases by 5% to £535.50

***(b)** Compare the increase in the amount of money Katie has to pay for her weekly train ticket with the increase in her weekly pay.

[3 marks]

Question 10

Naoby invests £6000 for 5 years.

The investment gets compound interest of $x\%$ per annum.

At the end of 5 years the investment is worth £8029.35

Work out the value of x .

[3 marks]



Question 11

At the beginning of 2009 the value of a different company was £250 000
In 6 years the value of this company increased to £325 000

This is equivalent to an increase of $x\%$ each year.

(b) Find the value of x .

Give your answer correct to 2 significant figures.

[3 marks]

Question 12

A savings account pays interest at a rate of $R\%$ per year.
Jack invests £5500 in the account for one year.

At the end of the year, Jack pays tax on the interest at a rate of 40%.
After paying tax, he gets £79.20

(b) Work out the value of R .

[3 marks]



Question 13

In 2003, Jerry bought a house.

In 2007, Jerry sold the house to Mia.
He made a profit of 20%

In 2012, Mia sold the house for £162 000
She made a loss of 10%

Work out how much Jerry paid for the house in 2003

[3 marks]

Question 14

Noah has an amount of money to invest for five years.

Saver Account

4% per annum
compound interest.

Investment Account

21% interest paid at the
end of 5 years.

Noah wants to get the most interest possible.

(b) Which account is best?

You must show how you got your answer.

[2 marks]



Question 15

The value of Ibrar's house increases by $x\%$ in the third year.
At the end of the third year the value of Ibrar's house is £140 000

- (b) Work out the value of x .
Give your answer correct to 3 significant figures.

[3 marks]