1 Jesy invests £8000 for ***n*** years in a savings account.

To find the value, V, of her investment after ***n*** years she uses the formula:

$$V = 8000 \times (1.025)^n$$

(a) Write down the annual rate of interest Jesy earns.

….....

(1)

(b) Find the **total amount of interest** Jesy earns in three years.

£….....

(2)

(Total for question 1 is 3 marks)

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2 Perrie invests £25000 for 3 years in a savings account.
She gets 2.7% per annum compound interest.

Calculate **the total amount of interest** Perrie will get after 3 years.

£….....

(Total for question 2 is 3 marks)

3 Jade bought a house for £350 000.

In the first year the house price increased by 3%
In the second year the house price increased by 2%
In the third year the house price depreciated by 5%

Work out the value of the house at the end of 3 years.

£….....

(Total for question 3 is 3 marks)

4 Leigh-Anne invests £2500 for 4 years in a savings account.
She gets 3% per annum compound interest.

How much money does Leigh-Anne have at the end of 4 years.

£….....

(Total for question 4 is 2 marks)

5 Annie invests £9500 for 5 years in a savings account.
She gets 1.8% per annum compound interest.

How much money does Annie have at the end of 5 years.

£….....

(Total for question 5 is 2 marks)

6 Greg bought a new car for £18 000.
In the first year the value of the car depreciates by 30%.
In the second year and the third year the car depreciates by 14%

Work out the value of the car after three years.

£.....

(Total for question 6 is 3 marks)

7 Nick bought a new car.
Each year the car depreciates in value by 12%.

Work out the number of years it takes for the car to half in value.

….....years

(Total for question 7 is 3 marks)

8 Fearne invests £5600 in a savings account.
She gets 2% per annum compound interest.

After ***n*** years, Fearne has £6061.62 in her account.
Work out the value of ***n***.

….....

(Total for question 8 is 2 marks)

9 Alice is going to invest some money for 5 years.

She can choose from two options:

Investment A: 2.7% compound interest per annum

Investment B: 2.8% simple interest per annum

Which investment should Alice choose
You must show your working.

(Total for question 9 is 4 marks)

10 Matt wants to invest £8000 for three years. He can choose between Bank A and Bank B.

Bank A	**Bank B**
1.2% compound interest per annum	2% compound interest in the first year 1% compound interest for each extra year

Which bank will give Matt the most interest after three years.
You must show your working.

(Total for question 10 is 4 marks)

11 Melvin invests £5000 in an account paying 2.5% compound interest per annum.

Charlie invests £4500 in an account paying 3% compound interest per annum.

Work out the difference between the amount of of money Melvin has after 5 years and the amount of money Charlie has after 5 years.

£….....

(Total for question 11 is 4 marks)