Compound/Simple Interest

SCAN ME

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

1 Jamal invests £500 for 3 years in an account paying 4% **simple** interest.

Work out the value of Jamal's investment at the end of 3 years. **[3 marks]**

Answer £ _____

2 Carmen invests £800 for 2 years in an account paying 3% **compound** interest.

Work out the value of Carmen's investment at the end of 2 years. **[3 marks]**

Answer £ _____

3 Niko invests £1250 for 4 years in an account paying 6% **simple** interest.

Work out the value of Niko's investment at the end of 4 years. **[3 marks]**

Answer £ _____

9

4 Dimitri invests £7000 for 3 years in an account paying 5.5% **compound** interest.

Work out the value of Dimitri's investment at the end of 3 years. **[3 marks]**

Answer £ _____

5 Layla invests £620 for 3 years in an account paying 2% **simple** interest.

Work out the value of Layla's investment at the end of 3 years. **[3 marks]**

Answer £ _____

6 Aiden invests £1100 for 6 years in an account paying 1.2% **compound** interest.

Work out the value of Aiden's investment at the end of 6 years. **[3 marks]**

Answer £ _____

Solutions

7 Elijah invests £4200 for 4 years in an account paying **compound** interest.

In the first year, the rate of interest is 5%
In all other years, the rate of interest is 2%

Work out the value of Elijah's investment at the end of 4 years. **[3 marks]**

Answer £ _____

8 Esme invests £880 for 3 years in an account paying **compound** interest.

In the first year, the rate of interest is 4%
In all other years, the rate of interest is 1.5%

Work out the value of Esme's investment at the end of 3 years. **[3 marks]**

Answer £ _____

15

9 Freya wants to invest £6000 for 3 years.

Bank A	**Bank B**
5% simple interest per year	4% compound interest per year

Work out how much **more** Freya's investment would be worth at the end of the 3 years if she uses Bank A compared to Bank B. **[5 marks]**

Answer £ _____

Solutions

10 Luca wants to invest £780 for 4 years.

Bank A	**Bank B**
4% compound interest per year	Year 1: 7% compound interest All other years: 3% compound interest

Work out which bank will give Luca the greater investment.

You must show your working. **[4 marks]**

Answer _____

9

11 A brand new car is worth £30000
The value of the car decreases at a rate of 15% per year.
Work out the value of the car when it is 3 years old. **[3 marks]**

Answer £ _____

12 The population of a city in 2025 is 340,000
The population is set to increase at a rate of 2% per year.
Work out the population of the city in the year 2029. **[3 marks]**

Answer _____

13 A YouTuber has 30,000 subscribers in January 2025.
The number of subscribers increases by 7.5% per month.
Work out how many subscribers the YouTuber will have in July 2025. **[3 marks]**

Answer _____

Solutions

14 In 2025, a forest covers an area of 12,000 hectares.
Due to deforestation, the area of the forest decreases by 4% each year.
Work out the area of the forest in 2030.
Give your answer to the nearest hectare. **[3 marks]**

Answer _____ hectares

15 A plant is measured at 45 cm tall in the spring.
It grows by 6% each week during the summer months.
Work out the height of the plant, to the nearest cm, after 10 weeks. **[3 marks]**

Answer _____ cm

16 A scientist places a sample of 80,000 bacteria in a dish.
Each hour, the number of bacteria decreases by 18%.
Work out how many bacteria remain in the dish after 5 hours. **[3 marks]**

Answer _____ bacteria

18

Turn over ►

Solutions

17 Isaac invests £550 for 4 years in an account paying 3.3% **compound** interest.

Work out how much **interest** Isaac made at the end of the 4 years. **[3 marks]**

Answer £ _____

18 Grace invests £250 in an account paying 4% **compound** interest.
Grace withdraws the money once it has made over £100 in interest.

Work out how many years Grace must wait before withdrawing the money. **[3 marks]**

Answer _____

19 Mariam invests some money in an account paying 9% **compound** interest.

Work out how many years it will take for the investment to triple in value. **[3 marks]**

Answer _____

Solutions

20 Aaliyah invests some money in an account paying 4% **compound** interest.

After 2 years the investment is worth £8869.12

20 (a) Work out how much the investment was worth after 1 year. **[3 marks]**

Answer £ _____

20 (b) Work out how much the investment will be worth after 4 years. **[3 marks]**

Answer £ _____

21 Rajesh invests some money for 5 years in an account paying 4.9% **compound** interest.

After 5 years the investment is worth £2769.07

Work out how much money Rajesh originally invested. **[3 marks]**

Answer £ _____

18

22 Leo invests £3200 for 2 years in an account paying **compound** interest.

After 2 years the investment is worth £3494.48

Work out the rate of interest. **[4 marks]**

Answer _____ %

23 Lucia invests £640 for 4 years in an account paying **compound** interest.

After **3 years** the investment is worth £689.21

Work out the value of Lucia's investment at the end of 4 years. **[5 marks]**

Answer £ _____

9

Solutions