

Compound/Simple Interest



REVISE THIS TOPIC



	TOPIC	ANSWERS		
1	1 Jamal invests £500 for 3 years in an account paying 4% simpl	e interest.		
	Work out the value of Jamal's investment at the end of 3 years.			
		C		
	(То	tal for Question 1 is 3 marks)		
2	2 Carmen invests £800 for 2 years in an account paying 3% con	npound interest.		
	Work out the value of Carmen's investment at the end of 2 years.			
		£		
	(То	tal for Question 2 is 3 marks)		
3	Niko invests £1250 for 4 years in an account paying 6% simple	le interest.		
	Work out the value of Niko's investment at the end of 4 years			



(Total for Question 3 is 3 marks)

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4	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.				
	£				
	(Total for Question 4 is 3 marks)				
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.				
	£(Total for Question 5 is 3 marks)				
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.				
	Work out the value of Much 3 investment at the end of 6 years.				
1 st	£				
1st	(Total for Question 6 is 3 marks)				
5					

7	Elijah invests £4200 for 4	vears in an account	paving comp	ound interest.
,	Liljan myesis 27200 ioi 7	years in an account	paying comp	ound 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.

£.....(Total for Question 7 is 3 marks)

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.





9 Freya wants to invest £6000 for 3 years.

Bank A

5% simple interest per year

Bank B

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.

£	
otal for Ouestion 9 is 5 marks)	







10 Luca wants to invest £780 for 4 years.

Bank A

4% compound interest per year

Bank B

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.

(Total for Question 10 is 4 marks)







Th	brand new car is worth £30000 he value of the car decreases at a rate of 15% per year. Fork out the value of the car when it is 3 years old.	
		£(Total for Question 11 is 3 marks)
		(Total for Question 11 is 3 marks)
Tł	he population of a city in 2025 is 340,000 he population is set to increase at a rate of 2% per year. Fork out the population of the city in the year 2029.	
		(Total for Question 12 is 3 marks)
Th	YouTuber has 30,000 subscribers in January 2025. The number of subscribers increases by 7.5% per month. Fork out how many subscribers the YouTuber will have	



(Total for Question 13 is 3 marks)



	In 2025, a forest covers an area of 12,000 hectares. Due to deforestation, the area of the forest decreases by 4 Work out the area of the forest in 2030.	ŀ% each year.
	Give your answer to the nearest hectare.	
		hectares
		(Total for Question 14 is 3 marks)
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.
		(Total for Question 15 is 3 marks)
	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 he	ours.
1st		bacteria
	/	(Total for Question 16 is 3 marks)
-	7	同報

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.				
	£			
	(Total for Question 17 is 3 marks)			
	o in an account paying 4% compound interest. the money once it has made over £100 in interest.			
Work out how man	ny years Grace must wait before withdrawing the money.			
	(Total for Question 18 is 3 marks)			
19 Mariam invests sor	me money in an account paying 9% compound interest.			
Work out how man	ny years it will take for the investment to triple in value.			
	(Total for Question 19 is 3 marks)			

Solutions

20	Aaliyah invests some money in an account paying 4% compound interest.	
	After 2 years the investment is worth £8869.12	
	(a) Work out how much the investment was worth after 1 year.	
	(b) Work out how much the investment will be worth after 4 years.	£(3)
		£
	(Total for Questi	(3) on 20 is 6 marks)
21	Rajesh invests some money for 5 years in an account paying 4.9% compour	
	After 5 years the investment is worth £2769.07	
	Work out how much money Rajesh originally invested.	
	Total out now much money region originally invested.	



£.....(Total for Question 21 is 3 marks)



22 L	eo invests	£3200 for 2	vears in an	account naving	compound interest.

After 2 years the investment is worth £3494.48

Work out the rate of interest.

(Total for Question 22 is 4 marks)

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.

(Total for Question 23 is 5 marks)

