

- 15** Demi pre-booked a hire car to use on holiday in Spain. She paid £70 in total which gave her car hire for 7 days.

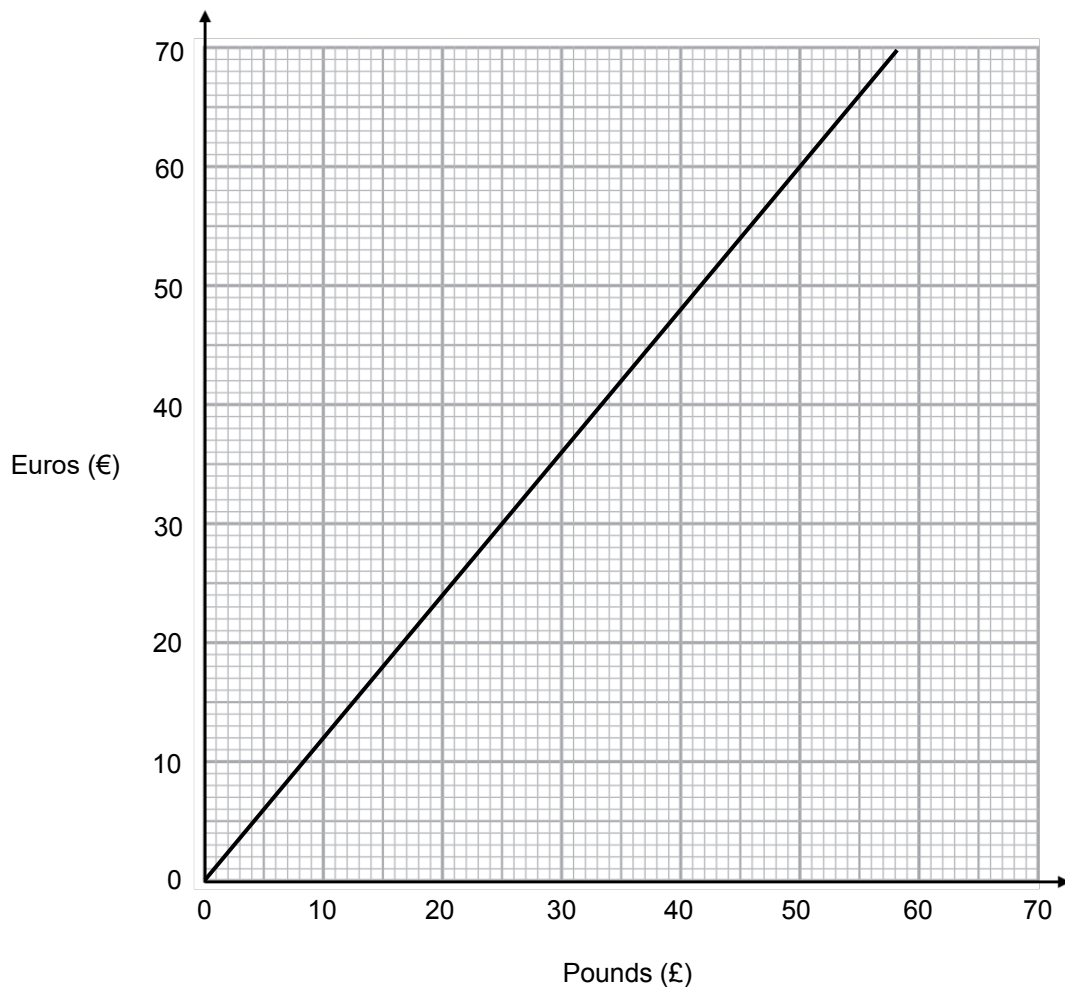
When she went on holiday, she realised that it may have been cheaper to hire the car in Spain, instead of pre-booking it.

The cost of the car hire, in Euros (€), in Spain is calculated using this formula:

$$\text{cost} = 0.6(30 + 15d)$$

where d is the number of days the car is hired for.

Demi uses this conversion graph to convert between Pounds (£) and Euros (€).



Work how much Demi would have saved by paying for the car hire in Spain, instead of pre-booking it. Give your answer in Pounds (£).

[5 marks]

Answer space provided on next page

15 cont

Answer _____

16 Whilst Demi is on holiday in Spain, she buys a coat that was reduced by 20% in a sale. If the sale price was €180, how much was its original price?

Give your answer in Euros (€).

[2 marks]

Answer _____

Turn over for next question

Turn over ►

- 17 The table gives information about the number of girls and boys in Years 9 and 10.

	Year 9	Year 10	Total
Boys		97	
Girls	112		196
Total	174		

Complete the two-way table and use this to find the probability that a student selected at random is a boy.

[4 marks]

Answer _____

- 18 Susan makes fudge using 2 parts of chocolate to 3 parts of frosting. Susan makes a batch of fudge using 510 g of frosting.

She eats 10% of the fudge she has made, and then splits the remaining fudge into individual bars, each weighing 100 g.

How many individual bars of fudge can she make?

[3 marks]

Answer _____

Turn over for next question

- 19 Donald is a zookeeper. In 2018, he measured the weights of the 6 leopards that are kept in the zoo, and recorded his results in the table below.

Leopard	1	2	3	4	5	6
Weight (kg)	32	29	27	34	30	27

In 2021, the median weight of the leopards was 68 lbs.

1 kg = 2.20 lbs

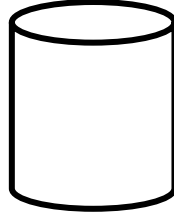
Calculate the percentage change in the median weight of the leopards from 2018 to 2021.

[5 marks]

Answer _____

Turn over for next question

20 A paperweight is shaped as a cylinder. The paperweight has a radius of 2 cm and a height of 5 cm.



The paperweight has a mass of 350 g. Calculate its density in g/cm^3 .
Use $\pi = 3.14$.

[4 marks]

Answer _____

Turn over for next question

21 Nabeela travelled to London by train. Her journey was made up of two parts, including a short wait in between.

One train into York and then another train into London.

The first train departed at 07: 05 and the journey lasted for 12 minutes.

The second train departed at 07: 27 and the journey lasted for 122 minutes.

The total distance travelled was 197 miles.

What was Nabeela's average speed for the entire journey?

Give your answer in miles per hour (mph).

[4 marks]

Answer _____

Turn over for next question

22

A shop has three offers on cola.

Offer 1 2 litre bottle Price: £1.80 Offer: 10% off
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Offer 2 4 × 330 ml cans Price: £2.20 Offer: half price
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Offer 3 500 ml bottle Price: 60p Offer: $\frac{1}{4}$ off

Which offer provides the best value for money?

Show your working.

[4 marks]

Answer _____

End of Section B