1 Work out the percentage increase from 60 to 75 **[3 marks]**

Answer _____ %

2 Work out the percentage increase from 500 to 560 **[3 marks]**

Answer _____ %

3 Work out the percentage increase from 200 to 500 **[3 marks]**

Answer _____ %

9

4   Work out the percentage decrease from 800 to 440   **[3 marks]**

Answer _____ %

5   Work out the percentage decrease from 275 to 187   **[3 marks]**

Answer _____ %

6   Work out the percentage decrease from 63 to 60   **[3 marks]**

Answer _____ %

7   A puppy weighs 4.5 kg
A week later the puppy weighs 5.4 kg

Work out the percentage increase in the weight of the puppy.   **[3 marks]**

Answer _____ %

8   On Friday, the number of visitors to a shop is 120
On Saturday, the number of visitors to the same shop is 105

Work out the percentage decrease in the number of visitors to the shop. **[3 marks]**

Answer _____ %

9   The normal price of a phone is £350
The phone is in a sale for x% off the normal price.

In the sale, the phone costs £280   **[3 marks]**
Work out the value of x.

$x =$ _____

18

Turn over ▶

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10   In 2024 a YouTuber had 60,000 subscribers.
In 2025 the same YouTuber had 168,000 subscribers.

Calculate the percentage increase in subscribers from 2024 to 2025.   **[3 marks]**

Answer _____ %

11   The population of a town in 2022, 2023 and 2024 is shown below.

Year	2022	2023	2024
Population	31200	36504	27378

11 (a)   Work out the percentage increase in population from 2022 to 2023   **[3 marks]**

Answer _____ %

11 (b)   Work out the percentage decrease in population from 2023 to 2024   **[3 marks]**

Answer _____ %

12 Liam buys a concert ticket for £40
He cannot attend so he sells it to his friend for £30

Work out Liam's percentage loss on the concert ticket. **[3 marks]**

Answer _____ %

13 Chloe buys a coat for £18.
She sells it for £26

Work out Chloe's percentage profit. **[3 marks]**

Answer _____ %

14 155 people are in a queue for a ride at a theme park.
20 people get on the ride from the queue.

Work out the percentage decrease in the size of the queue. **[3 marks]**
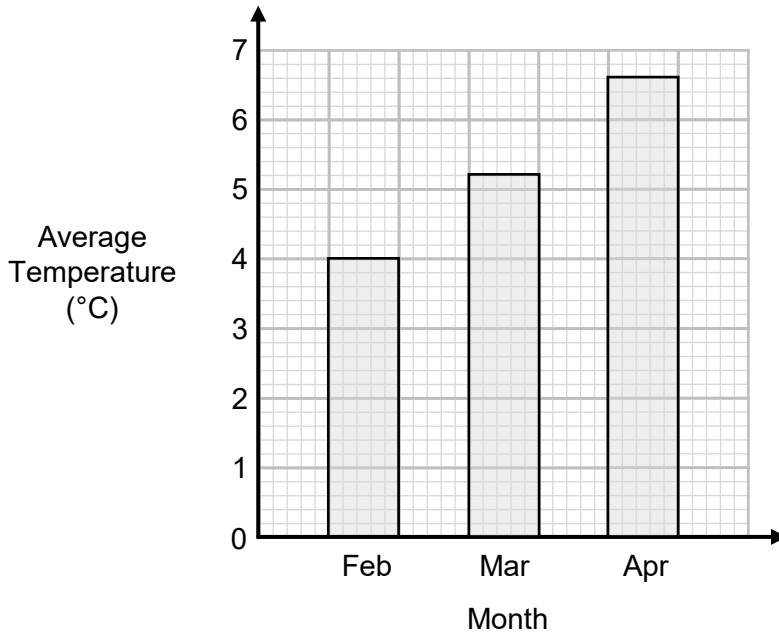
Answer _____ %

18

Turn over ▶

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15 The bar chart below shows information about the average temperature in the months February, March and April.

Aaron says:

"The percentage increase from March to April is greater than the percentage increase from February to March"

Show that Aaron is incorrect. **[4 marks]**

16 Aisha buys a bag of 50 sweets for £8
She sells each sweet individually for 20p

Calculate the percentage profit. **[3 marks]**

Answer _____ %

17 Omar runs a football club.

Each training session he pays

£60 to hire a football pitch
£15 for lighting

He charges £4.50 to each player to attend training.

On training session, 26 players attend.
Work out Omar's percentage profit for that training session. **[4 marks]**

Answer _____ %

11

Turn over ▶

Solutions

18 Sofia buys a car for £2,500
She spends £320 improving the car ready to sell it.
She sells the car for £3500

Work out Sofia's percentage profit. **[4 marks]**

Answer _____ %

19 Maria buys a house for £240,000
She spends £25,000 improving the house.

She sells the house a year later for £245,000

Work our Maria's percentage loss. **[4 marks]**

Answer _____ %

20 The cost per unit of electricity and gas for March and April are shown below.

Energy Type	Electricity	Gas
Cost per unit (March)	28.8 p	5.6 p
Cost per unit (April)	29.3 p	5.9 p

Buzz's energy usage for March and April is shown below.

Energy Type	Electricity	Gas
Energy Usage (March)	256	112
Energy Usage (April)	254	142

Work out the percentage increase in Buzz's energy costs between March and April. **[5 marks]**

Answer _____ %

13

21   200 red counters and 250 green counters are in a jar.

34% of the red counters are removed from the jar.
16% of the green counters are removed from the jar.

Work out the percentage decrease in the total number of counters in the jar.

[5 marks]

Answer _____ %

22   Steve and Jan both throw the javelin.

Jan's throw is 25% **more** than Steve's throw.
Steve's throw is x% **less** than Jan's throw.

Work out the value of x.

[3 marks]

$x =$ _____

9