



## PERCENTAGE WORD PROBLEMS 6.2B (UK VERSION)

Find the answers to these percentage word problems.

Round your answers to the nearest whole number where appropriate.

- 1) A pie shop sells 32 apple pies, 25 pumpkin pies, 21 cherry pies, and 18 chocolate pies. What percentage of pies sold were apple or cherry?



- 2) Newton watches a movie with his friends. They watch 30% of the movie and then take a break. They then watch the remaining 84 minutes. How long was the movie?



- 3) Captain's Autos sells 22 used cars on Monday, 17 cars on Tuesday and 15 cars on Wednesday. This was 60% of the number of sales for the week. How many cars did they sell altogether that week?



- 4) Sally spends 20% of her weekly budget on food, and 25% on rent. She has £330 left over. How much was her budget?



- 5) There are 40 Year 6 students and 28 Year 7 students in a group. 15% of the Year 6 students and 25% of the Year 7 students are vegan. How many vegans are in the group altogether?



- 6) Tyger and Newton have a long jump competition. Tyger jumps 20% further than Newton. If Newton jumps 475 cm, how far does Tyger jump?





## PERCENTAGE WORD PROBLEMS 6.2B (UK VERSION) ANSWERS

Find the answers to these percentage word problems.

Round your answers to the nearest whole number where appropriate.

- 1) A pie shop sells 32 apple pies, 25 pumpkin pies, 21 cherry pies, and 18 chocolate pies.

What percentage of pies sold were apple or cherry?

$$32+25+21+18 = 96 \text{ pies in total sold.}$$

$$32 + 21 = 53 \text{ pies are apple or cherry.}$$

$$(53 \div 96) \times 100 = 55.2.$$

$$55\% \text{ of the pies sold were apple or cherry.}$$

- 2) Newton watches a movie with his friends. They watch 30% of the movie and then take a break. They then watch the remaining 84 minutes. How long was the movie?

$$70\% \text{ of the movie} = 84 \text{ min. } 70\% = 0.7.$$

$$\text{So } 0.7 \times \text{movie length} = 84 \text{ minutes.}$$

$$\text{Movie length} = 84 \div 0.7 = 120 \text{ minutes or } 2 \text{ hours.}$$

- 3) Captain's Autos sells 22 used cars on Monday, 17 cars on Tuesday and 15 cars on Wednesday. This was 60% of the number of sales for the week.

How many cars did they sell altogether that week?

$$\text{Mon-Wed sales} = 22+17+15 = 54 \text{ cars.}$$

$$\text{So } 60\% \text{ of sales} = 54 \text{ cars.}$$

$$\text{So } 10\% \text{ of sales} = 54 \div 6 = 9 \text{ cars}$$

$$\text{Total Sales} = 10\% \times 10 = 9 \text{ cars} \times 10 = 90 \text{ cars.}$$

$$\text{There were } 90 \text{ car sales in the week.}$$

- 4) Sally spends 20% of her weekly budget on food, and 25% on rent. She has £330 left over.

How much was her budget?

$$\text{She spends } 45\% \text{ on food and rent.}$$

$$\text{So } 55\% \text{ of her budget} = £330.$$

$$\text{So } 5\% \text{ of her budget} = £330 \div 11 = £33$$

$$\text{Budget} = 5\% \times 20 = £33 \times 20 = £660.$$

$$\text{Her weekly budget is } £660.$$

- 5) There are 40 Year 6 students and 28 Year 7 students in a group. 15% of the Year 6 students and 25% of the Year 7 students are vegan. How many vegans are in the group altogether?

$$15\% \text{ of } 40 = 0.15 \times 40 = 6$$

$$25\% \text{ of } 28 = 0.25 \times 28 = 7$$

$$\text{Total number of vegans} = 6 + 7 = 13 \text{ students}$$

- 6) Tyger and Newton have a long jump competition. Tyger jumps 20% further than Newton. If Newton jumps 475 cm, how far does Tyger jump?

$$20\% \text{ of } 475 = 0.2 \times 475 = 95$$

$$\text{So Tyger jumps } 475 + 95 = 570 \text{ cm or } 5.7 \text{ m}$$