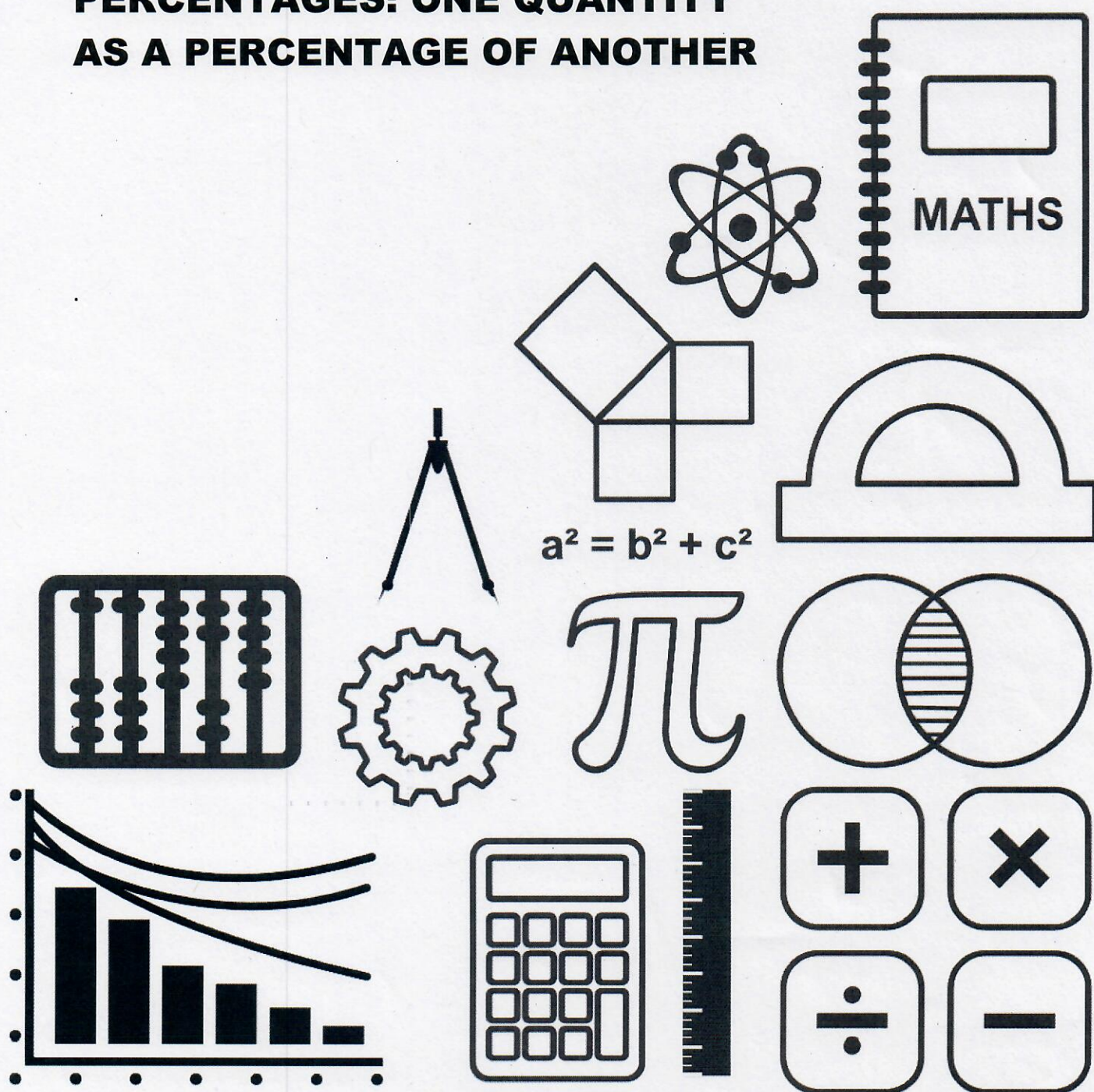


MATHSDIY

GCSE TOPIC BOOKLET

PERCENTAGES: ONE QUANTITY AS A PERCENTAGE OF ANOTHER

SOLUTIONS



1. In a recent rugby match 3000 of the 4800 fans were supporting Cardiff. What percentage were supporting Cardiff?

$$\frac{3000}{4800} \times 100 = \underline{\underline{62.5\%}}$$

(2)

2. What percentage of 180 is 35?

$$\frac{35}{180} \times 100 = \underline{\underline{19.4\%}} \quad (\text{or } \underline{\underline{19.4\%}} \text{ 1dp})$$

(2)

3. What percentage of £250 is £55?

$$\frac{55}{250} \times 100 = \underline{\underline{22\%}}$$

(2)

4. In an examination Terry's mark was 140 out of a total of 250. Express Terry's mark as a percentage of the total.

$$\frac{140}{250} \times 100 = \underline{\underline{56\%}}$$

(2)

5. Find £160 as a percentage of 400.

$$\frac{160}{400} \times 100 = 40\%$$

(2)

6. A delivery driver has delivered 84 out of 400 parcels. What percentage of the parcels has he delivered?

$$\frac{84}{400} \times 100 = 21\%$$

(2)

7. A car showroom has 220 cars for sale. In a recent promotion, they manage to sell 36 cars over a weekend. What percentage of the cars is this?

$$\frac{36}{220} \times 100 = 16.36\% \quad (\text{or } 16.4\% \text{ 1dp})$$

(2)

8. In a primary school 96 of the 150 pupils has a school lunch. What percentage is this?

$$\frac{96}{150} \times 100 = 64\%$$

(2)

9. Nick inherits £80 000 and decides to invest £15 000. What percentage does Nick invest?

$$\frac{15000}{80000} \times 100 = \underline{\underline{18.75\%}}$$

(2)

10. In a packet of sweets there are 5 yellow, 6 green, 4 purple, 3 orange and 2 red sweets. What percentage are orange?

$$5 + 6 + 4 + 3 + 2 = 20$$

$$\frac{3}{20} \times 100 = \underline{\underline{15\%}}$$

(2)

11. Amy scored 108 out of 120 in a recent physics test. What percentage is this?

$$\frac{108}{120} \times 100 = \underline{\underline{90\%}}$$

(2)

12. Daniel decides to declutter and donates 27 of his 48 DVDs to a charity shop. What percentage of his DVDs does Daniel donate?

$$\frac{27}{48} \times 100 = \underline{\underline{56.25\%}}$$

(2)

13. At a concert 1400 of the 5800 bought a programme. What percentage didn't buy a programme? Give your answer to one decimal place.

$$5800 - 1400 = 4400$$

$$\frac{4400}{5800} \times 100 = 75.862\ldots$$

$$= \underline{75.9\%} \text{ (1dp)}$$

(2)

14. A car showroom has capacity for 225 cars. They currently have 185 cars for sale. What percentage of their capacity is this? Give your answer to three significant figures.

$$\frac{185}{225} \times 100 = 82.\dot{2} = \underline{82.2\%} \text{ (3sf)}$$

(2)

15. Tom wants to go to Ibiza with his friends after his exams. He has already saved £240 out of the £900 he will need. What percentage has he already saved? Give your answer to two significant figures.

$$\frac{240}{900} \times 100 = 26.\dot{6}\% = \underline{27\%} \text{ (2sf)}$$

(2)