

**Your Turn****Section 1**

Write down the multiplier for each percentage:

a. 42%

0.42

f. 84%

0.84

k. 1%

0.01

b. 37%

0.37

g. 25%

0.25

l. 12.5%

0.125

c. 65%

0.65

h. 70%

0.7 or 0.70

m. 14.2%

0.142

d. 90%

0.9 or 0.90

i. 20%

0.2 or 0.20

n. 27.9%

0.279

e. 75%

0.75

j. 5%

0.05

o. 102%

1.02

Section 2

For each question, find the percentage of the given amount using a multiplier. You must show your workings. You must also include the units in your answer.

a. 15% of 180

$$15 \div 100 = 0.15$$

$$0.15 \times 180 = 27$$

g. 4% of 80mm

$$4 \div 100 = 0.04$$

$$0.04 \times 80 = 3.2\text{mm}$$

b. 8% of 240ml

$$8 \div 100 = 0.08$$

$$0.08 \times 240 = 19.2\text{ml}$$

h. 2.5% of £800

$$2.5 \div 100 = 0.025$$

$$0.025 \times 800 = \text{£}20$$

c. 11% of £5500

$$11 \div 100 = 0.11$$

$$0.11 \times 5500 = \text{£}605$$

i. 12% of £148

$$12 \div 100 = 0.12$$

$$0.12 \times 148 = \text{£}17.76$$

d. 18% of £40

$$18 \div 100 = 0.18$$

$$0.18 \times 40 = \text{£}7.20$$

j. 27.5% of 90 metres

$$27.5 \div 100 = 0.275$$

$$0.275 \times 90 = 24.75 \text{ metres}$$

e. 7% of 75kg

$$7 \div 100 = 0.07$$

$$0.07 \times 75 = 5.25\text{kg}$$

k. 2% of 90 000 euros

$$2 \div 100 = 0.02$$

$$0.02 \times 90\,000 = 1800 \text{ euros}$$

f. 29% of 18 litres

$$29 \div 100 = 0.29$$

$$0.29 \times 18 = 5.22 \text{ litres}$$

l. 110% of 5 million

$$110 \div 100 = 1.1$$

$$1.1 \times 5\,000\,000 = 5\,500\,000 \text{ or } 5.5 \text{ million}$$

Section 3

- a. Matthew saves 35% of the £12 pocket money he receives each week. How much money does he save per week?

$$35 \div 100 = 0.35$$

$$0.35 \times 12 = \text{£}4.20$$

- b. Leighton has a box containing 36 chocolates. He eats 25% of the chocolates. How many chocolates are left in the box?

$$25 \div 100 = 0.25$$

$$0.25 \times 36 = 9$$

$$36 - 9 = 27 \text{ chocolates left.}$$

Or

$$100 - 25 = 75$$

$$75 \div 100 = 0.75$$

$$0.75 \times 36 = 27 \text{ chocolates left.}$$

- c. Nadia scored 65% in her Maths exam. The maximum score was 120. How many marks did Nadia score on the exam?

$$65 \div 100 = 0.65$$

$$0.65 \times 120 = 78 \text{ marks scored.}$$

- d. A 400g tin of baked beans contains 5.5% protein. How many grams of protein are in the tin of baked beans?

$$5.5 \div 100 = 0.055$$

$$0.055 \times 400 = 22\text{g}$$

- e. 850 students attend a secondary school. 62% of the students use the school bus to travel to school. How many students do not use the school bus?

$$62 \div 100 = 0.62$$

$$0.62 \times 850 = 527$$

$$850 - 527 = 323 \text{ students do not use the school bus.}$$

Or

$$100 - 62 = 38$$

$$38 \div 100 = 0.38$$

$$0.38 \times 850 = 323 \text{ students do not use the school bus.}$$

- f. Which is larger, 20% of 12 or 15% of 18?

$$20 \div 100 = 0.20$$

$$0.20 \times 12 = 2.4$$

$$15 \div 100 = 0.15$$

$$0.15 \times 18 = 2.7$$

$$15\% \text{ of } 18 \text{ is larger.}$$



Challenge

An adult ticket for the aquarium costs £15.70.

A child ticket is half the price of an adult ticket.

Two parents and their 3 children go to the aquarium.

They use a voucher for 15% off the total cost of the tickets.

How much money do they save? You should give your answer correct to the nearest penny.

$$15.70 \div 2 = £7.85$$

$$(15.70 \times 2) + (7.85 \times 3) = £54.95$$

$$15 \div 100 = 0.15$$

$$0.15 \times 54.95 = £8.2425$$

£8.24 saved.