

Percentages

ANSWERS

Calculator | 30 minutes | Total marks: 30

Name Class

1

(a) Write $\frac{3}{8}$ as a percentage.

Answer 37.5% (1) [1 mark]

(b) Write 4% as a decimal.

Answer 0.04 (1) [1 mark]

(c) Write 140% as a decimal.

Answer 1.4 (1) [1 mark]

2

Write these in order of size. Start with the smallest.

0.6 58% $\frac{5}{8}$ 0.065

$$58\% = 0.58 \quad \frac{5}{8} = 0.625 \quad (1)$$

Answer 0.065, 58%, 0.6, $\frac{5}{8}$ (1) [2 marks]

3

Work out 17.5% of £240

$$0.175 \times 240 \quad (1)$$

Answer £ 42 (1) [2 marks]

4

Priya earns £31 000 a year.

She pays no income tax on the first £12 570

She pays 20% income tax on the rest.

Work out how much income tax Priya pays in a year.

$$31\,000 - 12\,570 = 18\,430 \text{ (1)}$$

$$0.2 \times 18\,430 \text{ (1)}$$

Answer £ 3686 (1)

[3 marks]

5

Maya scores 34 out of 40 in a science test.

Dev scores 41 out of 50 in a different science test.

Who has the higher percentage score?

You **must** show your working.

$$\text{Maya } \frac{34}{40} \times 100 = 85\% \text{ (1)}$$

$$\text{Dev } \frac{41}{50} \times 100 = 82\% \text{ (1)}$$

Answer Maya (1)

[3 marks]

6

(a) Write down the multiplier for a decrease of 12%

Answer 0.88 (1)

[1 mark]

(b) A coat costs £65

In a sale, the price is reduced by 12%

Work out the sale price.

$$0.88 \times 65 \text{ (1)}$$

Answer £ 57.20 (1)

[2 marks]

7

Kai buys a bike for £320

He sells it for £368

Work out his percentage profit.

$$368 - 320 = 48 \text{ (1)}$$

$$\frac{48}{320} \times 100 \text{ (1)}$$

Answer 15 (1) % [3 marks]

8

Ana puts £1500 into a savings account.

The account pays 3% simple interest each year.

Work out the total interest Ana earns in 4 years.

$$0.03 \times 1500 = 45 \text{ (1)}$$

$$45 \times 4$$

Answer £ 180 (1) [2 marks]

9

In a sale, all prices are reduced by 20%

The sale price of a television is £360

Work out the price of the television before the sale.

$$80\% \text{ of the price} = 360 \text{ (1)}$$

$$360 \div 0.8 \text{ (1)}$$

Answer £ 450 (1) [3 marks]

10

Leo invests £2000 for 3 years.

The account pays 3% compound interest each year.

Work out the value of the investment after 3 years.

$$\text{multiplier } 1.03 \text{ (1)}$$

$$2000 \times 1.03^3 \text{ (1)}$$

Answer £ 2185.45 (1) [3 marks]

11

A new car costs £12 000

The value of the car falls by 15% each year.

Work out the value of the car after 2 years.

multiplier 0.85 (1)

$12\,000 \times 0.85^2$ (1)

Answer £ 8670 (1)

[3 marks]

Question	Topic	RAG
1	I can convert between fractions, decimals and percentages	
2	I can order fractions, decimals and percentages	
3	I can find a percentage of an amount	
4	I can work out income tax	
5	I can compare two amounts using percentages	
6	I can use a multiplier to decrease an amount by a percentage	
7	I can work out a percentage profit	
8	I can work out simple interest	
9	I can find the original amount after a percentage change	
10	I can work out compound interest	
11	I can work out a repeated percentage decrease	