Multiple choice questions - Ratio, proportion and percentage change

Year: Year 10 · 10

Question 1 $18 : 24$ in simplest form is

- ◯ **A.** 3:4
- ◯ **B.** 9:12
- ◯ **C.** 6:8
- ◯ **D.** 2:3

Question 2 Share £60 in the ratio $1 : 2$.

- ◯ **A.** £20 and £40
- ◯ **B.** £30 and £30
- ◯ **C.** £10 and £50
- ◯ **D.** £15 and £45

Question 3 On a $1 : 50\,000$ map 4 cm represents

- ◯ **A.** 200 m
- ◯ **B.** 2 km
- ◯ **C.** 20 km
- ◯ **D.** 0.2 km

Question 4 Increase 60 by 25%.

- ◯ **A.** 75
- ◯ **B.** 85
- ◯ **C.** 15
- ◯ **D.** 80

Question 5 After a 10% decrease the price is £90. The original price was

- ◯ **A.** £99
- ◯ **B.** £100
- ◯ **C.** £81
- ◯ **D.** £91

Question 6 Simple interest on £500 at 2% for 3 years is

- ◯ **A.** £30
- ◯ **B.** £10
- ◯ **C.** £31.21

- ◯ **D.** £300

Question 7 A change from 50 to 40 is a

- ◯ **A.** 10% decrease
- ◯ **B.** 20% decrease
- ◯ **C.** 25% decrease
- ◯ **D.** 20% increase

Question 8 The ratio $2:5$. The first quantity is 8. The second is

- ◯ **A.** 20
- ◯ **B.** 16
- ◯ **C.** 12.8
- ◯ **D.** 10

Question 9 Which is the best value?

- ◯ **A.** 500 g for £2.00
- ◯ **B.** 1 kg for £3.60
- ◯ **C.** 250 g for £1.10
- ◯ **D.** 200 g for £0.90

Question 10 $0.5:2$ in simplest form is

- ◯ **A.** 1:4
- ◯ **B.** 1:2
- ◯ **C.** 5:2
- ◯ **D.** 0.5:2

Answer grid - Ratio, proportion and percentage change

Year: Year 10

Question	Answer	Explanation
1	**A**	Divide by 6.
2	**A**	3 parts of £20.
3	**B**	$4 \times 50\,000 = 200\,000$ cm $= 2$ km.
4	**A**	60×1.25.
5	**B**	$90 \div 0.9$.
6	**A**	$500 \times 0.02 \times 3$.
7	**B**	$\frac{10}{50} = 20\%$.
8	**A**	$8 \div 2 \times 5$.
9	**B**	Per 100 g: 40p, 36p, 44p, 45p. 36p is the lowest.
10	**A**	Multiply by 2.