# Multiple choice questions - Ratio and proportion

Year: Year 8 · 10

**Question 1** Simplify $15 : 25$.

- ◯ **A.** $3 : 5$
- ◯ **B.** $5 : 3$
- ◯ **C.** $1 : 2$
- ◯ **D.** $15 : 5$

**Question 2** Share 40 in the ratio $1 : 3$. The larger share is

- ◯ **A.** 10
- ◯ **B.** 30
- ◯ **C.** 13
- ◯ **D.** 20

**Question 3** The ratio of red to blue is $2 : 5$. There are 10 red. How many blue?

- ◯ **A.** 4
- ◯ **B.** 15
- ◯ **C.** 25
- ◯ **D.** 20

**Question 4** 4 books cost £18. Cost of 6 books?

- ◯ **A.** £24
- ◯ **B.** £27
- ◯ **C.** £30
- ◯ **D.** £36

**Question 5** 3 people take 10 days. How long for 6 people (inverse)?

- ◯ **A.** 20 days
- ◯ **B.** 5 days
- ◯ **C.** 30 days
- ◯ **D.** 3 days

**Question 6** A scale is $1 : 100$. A length of 6 cm on the plan is actually

- ◯ **A.** 60 cm
- ◯ **B.** 6 m
- ◯ **C.** 0.6 m

- ◯ **D.** 600 m

**Question 7** Which is the best value?

- ◯ **A.** 200 g for £1
- ◯ **B.** 500 g for £2.20
- ◯ **C.** 1 kg for £4.20
- ◯ **D.** 300 g for £1.35

**Question 8** Write $5 : 20$ as $1 : n$.

- ◯ **A.** $1 : 4$
- ◯ **B.** $1 : 5$
- ◯ **C.** $1 : 15$
- ◯ **D.** $1 : 100$

**Question 9** The ratio $a : b = 1 : 4$. If $b = 36$, $a =$

- ◯ **A.** 4
- ◯ **B.** 9
- ◯ **C.** 144
- ◯ **D.** 32

**Question 10** Which is inverse proportion?

- ◯ **A.** Cost and number of apples
- ◯ **B.** Distance and time at fixed speed
- ◯ **C.** Number of painters and time to paint a wall
- ◯ **D.** Perimeter and side of a square

# Answer grid - Ratio and proportion

Year: Year 8

| Question | Answer | Explanation |
|---|---|---|
| 1 | **A** | Divide by 5. |
| 2 | **B** | 4 parts, 1 part 10, larger is $3 \times 10$. |
| 3 | **C** | 1 part 5, blue 25. |
| 4 | **B** | $18 \div 4 = 4.50$; $\times 6 = 27$. |
| 5 | **B** | $3 \times 10 = 30$; $30 \div 6 = 5$. |
| 6 | **B** | $600$ cm $= 6$ m. |
| 7 | **C** | Per 100 g: 50p, 44p, 42p, 45p. |
| 8 | **A** | Divide by 5. |
| 9 | **B** | 1 part is 9. |
| 10 | **C** | More painters means less time. |