Exam-style mixed questions

Name: _____ **Date:** _____



Mr Boston says: Non-calculator papers: practise written methods for ×, ÷ and fractions.

Mixed exam-style questions

Show your working. Marks are in brackets. You may use a calculator only where your teacher or grown-up says.

1 [2 marks] Work out 45% of £360.

Answer: _____

2 [2 marks] Solve 7x − 9 = 33.

Answer: _____

3 [1 mark] Write 0.035 as a percentage.

Answer: _____

4 [2 marks] Share £96 in the ratio 5 : 3.

Answer: _____

5 [2 marks] Find the area of a triangle with base 15 cm and height 8 cm.

Answer: _____

6 [2 marks] Expand and simplify 3(2x + 5) − 4x.

Answer: _____

7 [2 marks] Find the nth term of 11, 15, 19, 23, …

Answer: _____

8 [3 marks] Find the hypotenuse when the short sides are 9 cm and 12 cm.

Answer: _____

9 [2 marks] Find the mean of 23, 31, 18, 26, 22.

Answer: _____

10 [2 marks] Round 0.004672 to 2 significant figures.

Answer: _____

11 [3 marks] A bag has red and blue counters in the ratio 2 : 7. P(red)?

Answer: _____

12 [3 marks] Estimate 49.8 × 3.1 ÷ 0.52.

Answer: _____

Answers for grown-ups

Exam-style mixed questions

1. [2 marks] Work out 45% of £360. → **£162.00**
2. [2 marks] Solve 7x − 9 = 33. → **x = 6**
3. [1 mark] Write 0.035 as a percentage. → **3.5%**
4. [2 marks] Share £96 in the ratio 5 : 3. → **£60 and £36**
5. [2 marks] Find the area of a triangle with base 15 cm and height 8 cm. → **60 cm²**
6. [2 marks] Expand and simplify 3(2x + 5) − 4x. → **2x + 15**
7. [2 marks] Find the nth term of 11, 15, 19, 23, … → **4n + 7**
8. [3 marks] Find the hypotenuse when the short sides are 9 cm and 12 cm. → **15 cm**
9. [2 marks] Find the mean of 23, 31, 18, 26, 22. → **24**
10. [2 marks] Round 0.004672 to 2 significant figures. → **0.0047**
11. [3 marks] A bag has red and blue counters in the ratio 2 : 7. P(red)? → **2/9**
12. [3 marks] Estimate 49.8 × 3.1 ÷ 0.52. → **50 × 3 ÷ 0.5 = 300**