WORKSHEETFORGE

GCSE Mathematics — Foundation Tier

Mixed practice paper · Calculator allowed

Name: _____ Date: _____ Total: **33 marks**

Instructions

- Answer all questions in the spaces provided.
- Show all working. Marks may be awarded for method.
- Diagrams are not drawn to scale.
- Calculators may be used unless a question says otherwise.

1 Simplifying fractions — **2 marks**

Write 10/12 in its simplest form.

2 Powers & roots — **1 mark**

Work out √121.

3 Adding & subtracting fractions — **2 marks**

Work out 1/3 + 2/7. Give your answer as a fraction in its simplest form.

4 Matchstick patterns — 3 marks

A pattern of squares is made from matchsticks. Figure 1 uses 4 matchsticks, Figure 2 uses 7 and Figure 3 uses 10.
(a) How many matchsticks are used in Figure 9?
(b) Write an expression, in terms of n, for the number of matchsticks in Figure n.

5 Mixed numbers — 2 marks

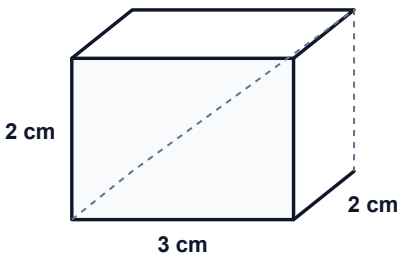
Write 2 1/6 as an improper fraction.

6 Rounding & estimation — 3 marks

Work out an estimate for the value of (7.2 × 79.6) ÷ 1.07.

7 Volume of a cuboid — 2 marks

A cuboid has a length of 3 cm, a width of 2 cm and a height of 2 cm. Work out its volume.



8 Comparing fractions — 2 marks

Which is larger, 4/5 or 1/6? You must show your working.

9 Best buys — 3 marks

Shop A sells 3 litres of orange juice for £4.80. Shop B sells 1.5 litres of orange juice for £1.50. Which shop is better value for money? Give a reason for your answer.

10 Fractions of an amount — 2 marks

Work out 4/5 of 500 ml.

11 Metric units — 1 mark

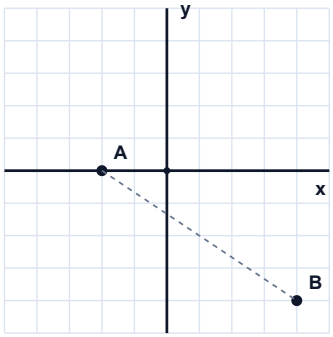
Change 49 hours into minutes.

12 Fractions, decimals & percentages — 2 marks

Write 4/5 as a percentage.

13 Midpoints — 2 marks

A is the point (−2, 0) and B is the point (4, −4). Work out the coordinates of the midpoint of AB.



14 Area on a grid — 3 marks

The shape is drawn on a square grid. Each small square is 1 cm by 1 cm. Work out the area of the shape.

15 Averages & range — 3 marks

Here are eight numbers:
8, 14, 6, 8, 8, 13, 4, 11
(a) Work out the mean.
(b) Work out the range.