Day 74 **C Tier 10-a-day: Model Solutions**

1 Reading a clock

Write down the time shown on the clock.

The minute hand points to 1, which is 1 × 5 = 5 minutes past, and the hour hand has passed the 6
The time is 6:05
Answer: 6:05

2 Timetables

The table shows part of a bus timetable.
How long does Bus 2 take to travel from Park to Station?

Leaves Park at 08:35 and arrives at Station at 08:50
From 08:35 to 08:50 is 15 minutes
Answer: 15 minutes

3 Multiplication

Work out 44 × 8.

40 × 8 = 320 and 4 × 8 = 32
320 + 32 = 352
Answer: 352

4 Bearings from compass points

Bearings are measured clockwise from north.
Write down the three-figure bearing of
(a) east
(b) west

North is 000°. Each compass point to the right (clockwise) is a further 45°.
(a) east is 090°
(b) west is 270°
Answer: (a) 090° (b) 270°

5 Using formulae

The perimeter, P cm, of a square with side length s cm is given by the formula P = 4s.
(a) Work out the value of P when s = 6.
(b) Work out the value of s when P = 20.

(a) P = 4 × 6 = 24
(b) 4s = 20, so s = 20 ÷ 4 = 5
Answer: (a) P = 24 (b) s = 5

6 Division with remainders

14 stickers are shared equally between 3 children.
(a) How many does each child get?
(b) How many are left over?

14 ÷ 3 = 4 remainder 2
Answer: (a) 4 (b) 2

7 Pattern sequences

Matchsticks are used to make a pattern of squares.
The diagram shows the first three patterns.
How many matchsticks are needed for
(a) Pattern 4
(b) Pattern 8

Pattern 1, 2, 3 have 4, 7, 10 matchsticks
Each pattern has 3 more matchsticks than the one before
Pattern 4: 4 + 3 × 3 = 13
Pattern 8: 4 + 3 × 7 = 25
Answer: (a) 13 (b) 25

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8 Money

A bottle of water costs 31p.
Work out the cost of 9 bottles.
Give your answer in pounds.

31p × 9 = 279p
279p = £2.79
Answer: £2.79

9 Equations of lines

A straight line passes through the points
(0, 1), (5, 1), (8, 1)
Write down the equation of the line.

Every point has y-coordinate 1, so the line is horizontal
Answer: y = 1

10 Pie chart angles

36 students were asked about their favourite sport.
9 of them chose football.
The results are shown in a pie chart.
Work out the angle of the sector for those students.

360° ÷ 36 = 10° for each student
9 × 10° = 90°
Answer: 90°