Day 114 **C Tier 10-a-day: Model Solutions**

1 Cost of several items

A pencil costs 89p.
Work out the cost of 2 pencils.
Give your answer in pounds.

89p × 2 = 178p
178p = £1.78
Answer: £1.78

2 Squares and roots

Work out 6^2.

$6^2 = 6 \times 6$
$= 36$
Answer: 36

3 Which expression

Which of these means 8 added to p?

$p + 8$, $\frac{p}{8}$, p^2, $8p$

8 added to p is written p + 8
Answer: p + 8

4 Map scales

On a map, 1 cm represents 50 km.
Two towns are 3 cm apart on the map.
Work out the real distance between the towns.

3 × 50 = 150
Answer: 150 km

5 Bearings from compass points

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

North is 000°. Each compass point to the right (clockwise) is a further 45°.
(a) east is 090°
(b) north-east is 045°
Answer: (a) 090° (b) 045°

6 Expressions for perimeter

A square has sides of length d cm.
Write an expression for the perimeter of the shape.
Give your answer in its simplest form.

Perimeter = d + d + d + d
= 4d
Answer: 4d cm

7 Timetables

The table shows the times of two buses.
Jo gets on Bus 2 at School.
What time does Jo get to Hospital?

Read along the row for Hospital in the Bus 2 column
Answer: 10:25

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8 Angles on a straight line

The diagram shows a straight line.
Work out the size of angle p.
The diagram is not drawn accurately.

Angles on a straight line add up to 180°
95 + 45 = 140
180 − 140 = 40
Answer: p = 40°

9 Metric units

Change 3 km to metres.

1 km = 1000 m
3 × 1000 = 3000
Answer: 3000 m

10 Pie chart angles

36 students were asked about their favourite fruit.
9 of them chose bananas.
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°