Day 321 **C Tier 10-a-day: Model Solutions**

1 Angles round a point

The diagram shows 4 angles round a point.
Work out the size of angle p.
The diagram is not drawn accurately.

Angles round a point add up to 360°
130 + 95 + 65 = 290
360 − 290 = 70
Answer: p = 70°

2 Even and odd numbers

Write down the next odd number after 78.

Odd numbers end in 1, 3, 5, 7 or 9
Count up from 78
Answer: 79

3 Angles in a quadrilateral

The diagram shows a quadrilateral.
Work out the size of angle b.
The diagram is not drawn accurately.

Angles in a quadrilateral add up to 360°
115 + 85 + 65 = 265
360 − 265 = 95
Answer: b = 95°

4 Simplifying expressions

Simplify c + 5q + 5q + 3c

Collect the c terms: 1 + 3 = 4c
Collect the q terms: 5 + 5 = 10q
Answer: 4c + 10q

5 Average speed

A train travels 45 miles in 3 hours.
Work out its average speed.

Speed = distance ÷ time
45 ÷ 3 = 15
Answer: 15 mph

6 Substitution

m = 8 and n = 4
Work out the value of
(a) m + 3n
(b) 2m + n

(a) 8 + 3 × 4 = 20
(b) 2 × 8 + 4 = 20
Answer: (a) 20 (b) 20

7 Stem and leaf diagrams

The stem and leaf diagram shows the ages, in years, of people in a club.
Write down the smallest value.

The first row has the smallest stem and the first leaf is the smallest
16
Answer: 16

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8 Inequalities

n is a whole number.
Write down all the possible values of n when
$3 \leq n \leq 9$

n is at least 3 and at most 9
The smallest whole number is 3 and the largest is 9
Answer: 3, 4, 5, 6, 7, 8, 9

9 Pie chart angles

45 students were asked about their favourite fruit.
4 of them chose bananas.
The results are shown in a pie chart.
Work out the angle of the sector for those students.

360° ÷ 45 = 8° for each student
4 × 8° = 32°
Answer: 32°

10 Reading a table

The table shows the number of books each day.
Work out the total number of books on Tuesday and Friday.

Tuesday: 29, Friday: 31
29 + 31 = 60
Answer: 60