Day 19 **C Tier 10-a-day: Model Solutions**

1 Tally charts

The tally chart shows the types of film some people watched.
How many more people for Comedy than for Action?

Comedy: 8 Action: 7
8 − 7 = 1
Answer: 1

2 Substitution

Work out the value of 8h when h = 5.

8h means 8 × h
8 × 5 = 40
Answer: 40

3 Estimating measurements

Which is the best estimate for the distance from Manchester to London by road?
3200 km 32 m 32 km 320 km

It is a few hours drive, a few hundred kilometres
The best estimate is 320 km
Answer: 320 km

4 Money: totals

Leo buys a comic and a sweet.
A comic costs £1.65.
A sweet costs 50p.
Work out the total cost.

£1.65 + 50p
165p + 50p = 215p = £2.15
Answer: £2.15

5 Perimeter of a regular polygon

A regular decagon has sides of length 11 cm.
Work out its perimeter.

A regular decagon has 10 equal sides
10 × 11 = 110
Answer: 110 cm

6 Number puzzles

Gita thinks of a number.
Gita multiplies it by 7.
The answer is 14.
What number did Gita think of?

Divide 14 by 7
14 ÷ 7 = 2
Answer: 2

7 Perimeter of an L-shape

The diagram shows an L-shape.
All the corners are right angles.
Work out the perimeter of the shape.
The diagram is not drawn accurately.

Find the two missing sides.
Missing horizontal side: 7 − 2 = 5
Missing vertical side: 12 − 5 = 7
Add all six sides: 7 + 5 + 5 + 7 + 2 + 12 = 38
Answer: 38 cm

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8 Expected number

The probability that a seed grows is $\frac{1}{4}$.

Mia plants 32 seeds.

How many seeds would you expect to grow?

Expected number = probability × number of trials

$\frac{1}{4} \times 32 = 8$

Answer: 8

9 Number sequences

Here is a number sequence.

50, 47, 44, 41, ...

Write down the next two numbers.

The sequence goes down by 3 each time

41 − 3 = 38, 38 − 3 = 35

Answer: 38, 35

10 The nth term

The nth term of a sequence is n + 6.

Write down the first three terms of the sequence.

Put n = 1, 2, 3 into n + 6

1 + 6 = 7, 2 + 6 = 8, 3 + 6 = 9

Answer: 7, 8, 9