Day 17 **C Tier 10-a-day: Model Solutions**

1 Substitution

Work out the value of 2a when a = 8.

2a means 2 × a
2 × 8 = 16
Answer: 16

2 Bar charts

The bar chart shows the favourite sport of some students.
How many more students for Hockey than for Cricket?

Hockey: 8 Cricket: 5
8 − 5 = 3
Answer: 3

3 Types of triangle

A triangle has angles of 50°, 90° and 40°.
What type of triangle is it?
Choose from: equilateral, isosceles, right-angled.

One of the angles is 90°
Answer: right-angled

4 Line graphs

The line graph shows the temperature in a garden at different times.
Work out the increase in the temperature between 11 am and 12 pm.

At 11 am: 8°C At 12 pm: 11°C
11 − 8 = 3
Answer: 3°C

5 Ordering fractions

Write these fractions in order, starting with the largest.

$\frac{7}{12}, \frac{2}{12}, \frac{11}{12}$

The denominators are all 12, so compare the numerators
11, 7, 2 (numerators in order)
Answer: $\frac{11}{12}, \frac{7}{12}, \frac{2}{12}$

6 Reflecting a point

The point P has coordinates (−2, 5).
P is reflected in the y-axis.
Write down the coordinates of the image of P.

The y-coordinate stays the same and the x-coordinate changes sign
Answer: (2, 5)

7 Ordering numbers

Write these numbers in order, starting with the smallest.
544, 545, 580, 632

Compare the hundreds digits first, then the tens
544, 545, 580, 632
Answer: 544, 545, 580, 632

8 Tables of values

Complete the table of values for y = x + 5.

When x = 4: y = 4 + 5 = 9
When x = 5: y = 5 + 5 = 10
Answer: x = 4: y = 9; x = 5: y = 10

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9 Shaded area

The diagram shows a rectangle with a smaller rectangle cut out of it.
Work out the area of the shaded part.
The diagram is not drawn accurately.

Big rectangle: 13 × 9 = 117
Small rectangle: 7 × 4 = 28
Shaded area: 117 − 28 = 89

Answer: 89 m^2

10 Fractions of amounts

Work out $\frac{1}{2}$ of 28.

Divide by 2
28 ÷ 2 = 14

Answer: 14