Day 97 **C Tier 10-a-day: Model Solutions**

1 Sequences

Here are the first four terms of a sequence.
13, 20, 27, 34
(a) Write down the next term.
(b) Write down the rule for finding the next term.

(a) The terms go up by 7 each time
Next term = 41
(b) Add 7 each time
Answer: (a) 41 (b) Add 7

2 Money

A pen costs 62p.
Work out the cost of 6 pens.
Give your answer in pounds.

62p × 6 = 372p
372p = £3.72
Answer: £3.72

3 Pay rates

Jack is paid £12 for each hour of work.
Jack works for 4 hours.
How much is Jack paid?

£12 × 4 = £48
Answer: £48

4 Solving equations

Solve $\frac{c}{7} = 8$

$\frac{c}{7}$ means c ÷ 7, so multiply both sides by 7
c = 8 × 7 = 56
Answer: c = 56

5 Finish time

A concert begins at 10:00 am.
It lasts 2 hours 45 minutes.
At what time does it finish?

Add the hours: 10:00 am + 2 hours = 12:00 pm
Add the minutes: 12:00 pm + 45 minutes = 12:45 pm
Answer: 12:45 pm

6 Number puzzles

Max thinks of a number.
Max multiplies it by 2.
The answer is 18.
What number did Max think of?

Divide 18 by 2
18 ÷ 2 = 9
Answer: 9

7 Rounding decimals

Round 34.8 to the nearest whole number.

Look at the first decimal digit, which is 8
8 is 5 or more, so round up
Answer: 35

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8 Angles in a right angle

The diagram shows a right angle split into two angles.
Work out the size of angle x.
The diagram is not drawn accurately.

The square corner is a right angle, which is 90°
90 − 55 = 35
Answer: x = 35°

9 Travel graphs

The graph shows a journey. Sam cycles from home to a shop and then back home.
(a) How far from home was the journey after 1 hour?
(b) Work out the total distance travelled.

(a) Read up from 1 on the time axis: 10 km
(b) To the shop and back: 10 + 10 = 20
Answer: (a) 10 km (b) 20 km

10 Perimeter from area

A rectangular poster has an area of 40 cm^2.
Its width is 5 cm.
Work out the perimeter of the poster.

Length = area ÷ width = 40 ÷ 5 = 8
Perimeter = 8 + 5 + 8 + 5 = 26
Answer: 26 cm