Day 89 **C Tier 10-a-day: Model Solutions**

1 Multiples: smallest common

Find the smallest number that is a multiple of both 5 and 8.

Multiples of 5: 5, 10, 15, 20, 25, 30, 35, 40
Multiples of 8: 8, 16, 24, 32, 40
40 is in both lists
Answer: 40

2 Angles in a right angle

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

The square corner is a right angle, which is 90°
90 − 60 = 30
Answer: q = 30°

3 Formulae in words

Here is a rule to work out the fare for a taxi journey.
Fare (£) = 7 × number of miles + 15
Work out the fare for a journey of 6 miles.

Fare (£) = 7 × 6 + 15
= 42 + 15 = 57
Answer: £57

4 Rates

A printer prints 15 pages each minute.
How many pages does it print in 3 minutes?

15 × 3 = 45
Answer: 45 pages

5 Naming quadrilaterals

Write down the name of the quadrilateral that has just one pair of parallel sides and no right angles.

The quadrilateral with just one pair of parallel sides and no right angles is a trapezium
Answer: trapezium

6 Percentages of amounts

Work out 1% of 500 kg.

1% = $\frac{1}{100}$, so divide by 100
500 ÷ 100 = 5
Answer: 5 kg

7 Special sequences

Here are the first four terms of a sequence.
6, 10, 15, 21
Write down the next term.

The gaps go up by 1 each time: 4, 5, 6, ...
The next gap is 7, so 21 + 7 = 28
Answer: 28

8 Sampling

Jack wants to find out the favourite food of students in a school.
Jack asks only five of their friends.
Give a reason why this sample may be biased.

The sample is too small and only includes friends
Answer: The sample is too small and only includes friends

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9 Substitution

a = 3 and p = 2
Work out the value of
(a) a + p
(b) a + 3p

(a) 3 + 2 = 5
(b) 3 + 3 × 2 = 9
Answer: (a) 5 (b) 9

10 Reading a clock

Write down the time shown on the clock.

The minute hand points to 2, which is 2 × 5 = 10 minutes past, and the hour hand has passed the 8
The time is 8:10
Answer: 8:10