Day 130 **C Tier 10-a-day: Model Solutions**

1 Missing numbers

Find the missing number.

$4 \times ? = 16$

$16 \div 4 = 4$

Answer: 4

2 Timetables

The table shows part of a bus timetable.

Priya arrives at Hospital at 09:36.

What is the time of the next bus from Hospital?

Look along the Hospital row for the first time after 09:36

The next bus is at 09:40

Answer: 09:40

3 Reading a clock

The clock shows the time now.

(a) Write down the time shown.

(b) What time will it be in 45 minutes?

(a) The minute hand points to 7, which is $7 \times 5 = 35$ minutes past, and the hour hand has passed the 4, so the time is 4:35

(b) 4:35 + 45 minutes = 5:20

Answer: (a) 4:35 (b) 5:20

4 Probability with dice

A fair 8-sided dice numbered 1 to 8 is rolled.

Write down the probability of rolling

(a) a 8

(b) a 3

(a) 1 out of 8 numbers: $\frac{1}{8}$

(b) 1 out of 8 numbers: $\frac{1}{8}$

Answer: (a) $\frac{1}{8}$ (b) $\frac{1}{8}$

5 Simplifying expressions

Simplify $4b + 2b + 3c + 6c$

Collect the b terms: $4 + 2 = 6b$

Collect the c terms: $3 + 6 = 9c$

Answer: $6b + 9c$

6 Ordering fractions

Write these fractions in order, starting with the smallest.

$\frac{4}{9}, \frac{2}{9}, \frac{8}{9}$

The denominators are all 9, so compare the numerators

2, 4, 8 (numerators in order)

Answer: $\frac{2}{9}, \frac{4}{9}, \frac{8}{9}$

7 Angles between clock hands

Work out the smaller angle between the hour hand and the minute hand of a clock at 10 o'clock.

There are 12 hours round a clock, so each hour is $360 \div 12 = 30°$

At 10 o'clock the hands are 10 hours apart (going the short way: 2)

$2 \times 30 = 60$

Answer: 60°

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8 Simplifying fractions

Write $\frac{2}{4}$ in its simplest form.

Divide the top and bottom by 2

$\frac{2}{4} = \frac{1}{2}$

Answer: $\mathbf{\frac{1}{2}}$

9 Line graphs

The line graph shows the number of cars in a car park at different times.
Work out the increase in the number of cars between 11 am and 12 pm.

At 11 am: 35 At 12 pm: 40

40 − 35 = 5

Answer: 5

10 Writing numbers in figures

Write two thousand three hundred and seventy-five in figures.

Write each part: 2000 + 300 + 75

Add the parts together

Answer: 2375