Day 135 **C Tier 10-a-day: Model Solutions**

1 Substitution

Work out the value of 9w when w = 3.

9w means 9 × w
9 × 3 = 27
Answer: 27

2 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 − 65 = 25
Answer: x = 25°

3 Pay rates

Dina is paid £11 for each hour of work.
Dina is paid £66 in total.
How many hours did Dina work?

£66 ÷ £11 = 6
Answer: 6 hours

4 Angles in a quadrilateral

The diagram shows a quadrilateral.
Work out the size of angle q.
The diagram is not drawn accurately.

Angles in a quadrilateral add up to 360°
90 + 95 + 70 = 255
360 − 255 = 105
Answer: q = 105°

5 Time

A concert starts at 1:20 pm.
It finishes at 1:45 pm.
How long does it last?

1:20 pm to 1:45 pm is 25 minutes
Answer: 25 minutes

6 Rates

A baker makes 8 loaves each hour.
How many hours does it take to reach 40 loaves?

40 ÷ 8 = 5
Answer: 5 hours

7 Estimation

Estimate the value of 53 + 29 by rounding each number to the nearest 10.

53 rounds to 50 and 29 rounds to 30
50 + 30 = 80
Answer: 80

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8 Reflection on a grid

The point P is drawn on the grid.
P is reflected in the line x = 3.
Write down the coordinates of the image of P.

P is (2, 4)
P is 1 squares to the left of the line, so the image is 1 squares to the right
x-coordinate: 3 + 1 = 4
Answer: (4, 4)

9 Adding fractions

Work out $\frac{3}{8} + \frac{4}{8}$.

The denominators are the same, so add the numerators
3 + 4 = 7
Answer: $\mathbf{\frac{7}{8}}$

10 Inequalities

n is a whole number.
Write down all the possible values of n when
$4 < n \leq 10$

n is bigger than 4 and at most 10
The smallest whole number is 5 and the largest is 10
Answer: 5, 6, 7, 8, 9, 10