Day 29 **C Tier 10-a-day: Model Solutions**

1 Names of polygons

How many sides does an octagon have?

A octagon has 8 sides

Answer: 8

2 Which expression

Which of these means 9 added to y?

$y + 9$, y^2, $9y$, $\frac{y}{9}$

9 added to y is written y + 9

Answer: y + 9

3 Money: totals

Zara buys a bun and a milkshake.
A bun costs 60p.
A milkshake costs 50p.
Work out the total cost.

60p + 50p
60p + 50p = 110p = £1.10

Answer: £1.10

4 Angles on a straight line

Three lines meet at a point on a straight line.
Work out the size of angle a.
The diagram is not drawn accurately.

Angles on a straight line add up to 180°
35 + 95 = 130
180 − 130 = 50

Answer: a = 50°

5 Sequences

Here is a sequence with one number missing.
16, 27, 38, ?, 60
Work out the missing number.

The terms go up by 11 each time
38 + 11 = 49

Answer: 49

6 Probability of an event not happening

The probability that the post arrives before 9 am is 0.1.
Work out the probability that this does not happen.

P(not) = 1 − P(event)
1 − 0.1 = 0.9

Answer: 0.9

7 Multiplying multiples of 10

Work out 30 × 5.

Work out 3 × 5 = 15
Then put the zeros back on

Answer: 150

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8 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 × 7 = 91
Small rectangle: 6 × 5 = 30
Shaded area: 91 − 30 = 61

Answer: 61 cm^2

9 Probability of not getting a colour

A bag contains 7 blue sweets, 4 black sweets and 1 green sweets.
One is taken at random.
Write down the probability that it is not green.

Number that are not green: 7 + 4 = 11
Total: 12

Probability = $\frac{11}{12}$

Answer: $\frac{11}{12}$

10 Multiples

Here is a list of numbers.
77, 23, 19, 64, 49
Write down the multiple of 8.

Check which number is in the 8 times table
8 × 8 = 64

Answer: 64