Day 55 **C Tier 10-a-day: Model Solutions**

1 The mode

Here are the numbers of goals scored by a team in some matches.
5 0 6 4 5 6 0 6
Write down the mode.

The mode is the value that appears most often
6 appears 3 times
Answer: 6

2 Solving equations

Solve $z - 8 = 6$

Add 8 to both sides
$z = 6 + 8 = 14$
Answer: $z = 14$

3 24-hour clock

Write 19:20 using am or pm.

Subtract 12 from the hour for times after 12:00
Answer: 7:20 pm

4 The mean

Here are the marks in a test.
12 8 20 20
Work out the mean.

Add up the values: $12 + 8 + 20 + 20 = 60$
Divide by 4: $60 \div 4 = 15$
Answer: 15

5 Money: saving

Eva wants to buy a game for £42.
Eva has saved £26.
How much more does Eva need?

$£42 - £26 = £16$
Answer: £16

6 Angles in a triangle

The diagram shows a triangle.
Work out the size of angle y.
The diagram is not drawn accurately.

Angles in a triangle add up to 180°
$60 + 40 = 100$
$180 - 100 = 80$
Answer: $y = 80°$

7 Reading straight line graphs

The graph shows the cost of printing photos.
(a) Work out the cost of printing 3 photos.
(b) Dev spends £10 printing photos. How many photos does Dev print?

(a) Go up from 3 on the bottom axis to the line, then across: £6
(b) Go across from 10 on the cost axis to the line, then down: 5
Answer: (a) £6 (b) 5

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8 Finding a missing value from the mean

The mean of three numbers is 10.
Two of the numbers are 1 and 11.
Work out the other number.

Total of all the numbers: 10 × 3 = 30
Total of those given: 1 + 11 = 12
30 − 12 = 18
Answer: 18

9 Perimeter from area

A rectangular garden has an area of 42 m^2.
Its width is 6 m.
Work out the perimeter of the garden.

Length = area ÷ width = 42 ÷ 6 = 7
Perimeter = 7 + 6 + 7 + 6 = 26
Answer: 26 m

10 Equations of lines

A straight line passes through the points
(2, 0), (2, 1), (2, 7)
Write down the equation of the line.

Every point has x-coordinate 2, so the line is vertical
Answer: x = 2