Day 50 **C Tier 10-a-day: Model Solutions**

1 Cost of one item

8 stickers cost £3.20.
Work out the cost of one sticker.

320p ÷ 8 = 40p
Answer: 40p

2 Which expression

Which of these means t divided by 8?

$t + 8$, t^2, $\frac{t}{8}$, $8t$

t ÷ 8 is written $\frac{t}{8}$

Answer: $\frac{t}{8}$

3 Frequency tables

The table shows the number of pets owned by each student in a class.
Work out the total frequency for the numbers less than 1.

4 = 4
Answer: 4

4 Vertically opposite angles

The diagram shows two straight lines crossing.
(a) Work out the size of angle a.
(b) Work out the size of angle p.
The diagram is not drawn accurately.

(a) Vertically opposite angles are equal
a = 55°
(b) Angles on a straight line add up to 180°
180 − 55 = 125
Answer: (a) a = 55° (b) p = 125°

5 Solving equations

Solve 5q = 50

5q means 5 × q, so divide both sides by 5
q = 50 ÷ 5 = 10
Answer: q = 10

6 Money: totals

Ben buys an apple and a banana.
An apple costs 75p.
A banana costs £1.60.
Work out the total cost.

75p + £1.60
75p + 160p = 235p = £2.35
Answer: £2.35

7 Perimeter and area of a square

A square picture has sides of length 12 mm.
(a) Work out its perimeter.
(b) Work out its area.

(a) A square has 4 equal sides: 4 × 12 = 48
(b) Area = side × side: 12 × 12 = 144
Answer: (a) 48 mm (b) 144 mm^2

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8 Fractions, decimals and percentages

Write 70% as a decimal.

70% means 70 out of 100
70 ÷ 100 = 0.7
Answer: 0.7

9 Forming and solving equations

x cakes are shared equally between 6 friends.
Each friend gets 2 cakes.
(a) Write down an equation using x.
(b) Solve your equation to find how many cakes there were.

(a) $\frac{x}{6} = 2$

(b) x = 2 × 6 = 12

Answer: (a) $\frac{x}{6} = 2$ (b) x = 12

10 Order of operations

Work out 6 × 5 + 6.

Multiply first
6 × 5 = 30
30 + 6 = 36
Answer: 36