

# m3 = 22 days to go!

- 2 (a) Bikes normally cost £ $b$  each.

In a sale they are each reduced by £30

Write an expression for the cost of a bike in the sale.

$$b - 30$$

Answer  $b - 30$  [1]

- (b) Cycling helmets normally cost £ $h$  each.

In a sale they are each reduced to half-price.

Write an expression for the cost of a cycling helmet in the sale.

$$\frac{h}{2}$$

Answer  $\frac{h}{2}$  [1]

- (c) Write an expression for the total cost of 4 bikes and 4 cycling helmets in the sale.

$$4(b - 30) \quad \text{and} \quad 4\left(\frac{h}{2}\right)$$

$$4b - 120 \quad \text{and} \quad 2h$$

Answer  $4b - 120 + 2h$  [2]

$$4b - 120 + 2h$$

12 Each player in a group of 15 players scored either 2 or  $x$  goals.

*How many?*

Number of goals	Frequency
2	10
$x$	5

*2, 2, 2, 2, 2, 2, 2, 2, 2, 2,*

*x, x, x, x, x*

The mean number of goals per player was 3

Calculate  $x$ .

$$\frac{2+2+2+2+2+2+2+2+2+2+2+x+x+x+x+x}{15} = 3$$

$$\frac{20 + 5x}{15} = 3$$

$$20 + 5x = 45$$

$$5x = 25$$

$$x = 5$$

Answer  $x = \underline{5}$  [3]

*You can check this!*

14 Last year a company spent a total of £2400 on advertising.

This year they spent £2796

What was the percentage increase in their spending on advertising?

*£ 2400 increased by £ 396*

$$\% \text{ increase} = \frac{\text{increase}}{\text{original}} \times 100$$

$$\frac{396}{2400}$$

Answer  $\underline{16.5\%}$  [3]