

① The length of a rectangle is 12 cm more than the width. The perimeter is 44 cm. Find the length and the width.

Let  $x = \text{width}$

$$x + 12 = \text{length}$$

$$\text{Perimeter} = 2w + 2l$$

$$2x + 2(x + 12) = 44$$

$$2x + 2x + 24 = 44$$

$$4x + 24 = 44$$

$$4x = 20$$

$$x = 5$$

$$\text{width} = 5 \text{ cm}$$

$$\text{length} = 17 \text{ cm}$$

② The perimeter of a rectangle is 104 m. The length is 7 m more than twice the width. What are the dimensions of the rectangle?

Let  $x = \text{width}$

$$2x + 7 = \text{length}$$

$$\text{Perimeter} = 2w + 2l$$

$$2x + 2(2x + 7) = 104$$

$$2x + 4x + 14 = 104$$

$$6x + 14 = 104$$

$$6x = 90$$

$$x = 15$$

$$\text{width} = 15 \text{ m}$$

$$\text{length} = 2(15) + 7$$

$$30 + 7 =$$

$$37 \text{ m}$$