

**SECTION A: Length**

1. What units would you use to measure the following? ( $\frac{1}{2} \times 6 = 3$ )

- 1.1 An eraser mm ✓
- 1.2 Your teacher's bag cm ✓
- 1.3 Length of the Grade 5 corridor m ✓
- 1.4 The nail on your little finger mm ✓
- 1.5 The distance from your home in Port Elizabeth to your cousin's farm near Grahamstown km ✓
- 1.6 The length of your swimming pool m ✓

2. Measure the length of the teaspoon and write the answer in cm and then mm. (2)

Teaspoon: **11,1 mm or 11,2 cm = 111 mm or 112 mm**



3. Complete the conversions below:

( $\frac{1}{2} \times 12 = 6$ )

- |                                |   |
|--------------------------------|---|
| 3.1 <b>10</b> mm = 1 cm        | 3.7 1 km = <b>1 000</b> m                       |
| 3.2 1 m = <b>0,01</b> cm       | 3.8 3 cm = <b>30</b> mm                         |
| 3.3 4 km 78 m = <b>4 078</b> m | 3.9 <b>55</b> mm = $5 \frac{1}{2}$ cm           |
| 3.4 203 cm = <b>2 m 30</b> mm  | 3.10 <b>2</b> km = 2 000 m                      |
| 3.5 6 m = <b>600</b> cm        | 3.11 $2 \frac{1}{4}$ m = <b>2 250</b> mm        |
| 3.6 <b>8</b> m = 800 cm        | 3.12 750 mm = $\frac{3}{4}$ m or <b>0,750</b> m |

**SECTION B: Perimeter and Area**

4. What is perimeter? (2)

**Perimeter is the shortest distance around the outside of an object or shape OR perimeter is the total distance around a figure ✓ ✓**

5. What is area? (2)

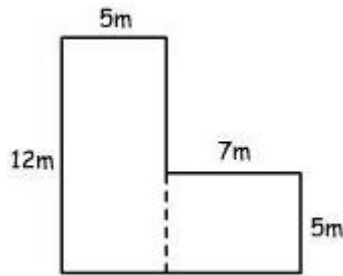
**Area is the measure of 2D space inside a shape OR the number of square units inside a shape OR the amount of space inside a shape. ✓ ✓**

6. What is volume? (2)

**Volume is the measure of 3D space inside a shape OR Volume is how much space the inside of the prism with hold. ✓ ✓**



9. Work out the area of this shape. Show your working out. This diagram is not drawn to scale. Can you see that there are two areas that need to be calculated? (8)



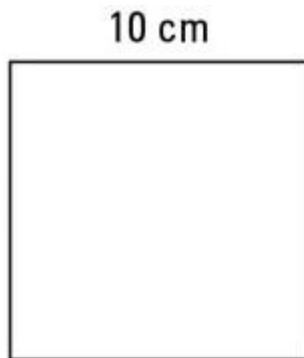
$$\begin{aligned} \text{Area} &= \ell \times w \checkmark \\ &= 12 \times 5 \checkmark \\ &= 60 \text{ m}^2 \checkmark \end{aligned}$$

$$\begin{aligned} \text{Area} &= \ell \times w \checkmark \\ &= 7 \times 5 \checkmark \\ &= 35 \text{ m}^2 \checkmark \end{aligned}$$

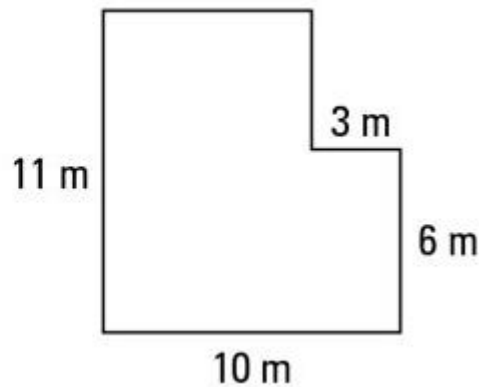
$$\begin{aligned} \text{Total area} &= 60 \text{ m}^2 + 35 \text{ m}^2 \checkmark \\ &= 95 \text{ m}^2 \checkmark \end{aligned}$$

10. Write down the perimeter AND area of these shapes. (12)

Shape A



Shape B



(Did you write the formula, show your working out and write the units?)

$$\begin{aligned} \text{Shape A: Perimeter} &= s \times 4 \text{ or } s + s + s + s \checkmark \\ &= 10 \times 4 \checkmark \\ &= 40 \text{ cm} \checkmark \end{aligned}$$

$$\begin{aligned} \text{Shape B: Perimeter} &= \text{sum of all the sides} \checkmark \\ &= 11 + 7 + 5 + 3 + 6 + 10 \checkmark \\ &= 42 \text{ m} \checkmark \end{aligned}$$

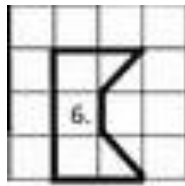
$$\begin{aligned} \text{Shape A: Area} &= \ell \times w \checkmark \\ &= 10 \times 10 \checkmark \\ &= 100 \text{ cm}^2 \checkmark \end{aligned}$$

$$\begin{aligned} \text{Shape B: Area} &= \text{Area} + \text{Area} \\ &= (\ell \times w) + (\ell \times w) \checkmark \\ &= (10 \times 6) + (5 \times 7) \text{ or } (11 \times 7) + (3 \times 6) \\ &= 60 + 35 \quad \quad \quad = 77 + 18 \checkmark \\ &= 95 \text{ m}^2 \quad \quad \quad = 95 \text{ m}^2 \checkmark \end{aligned}$$

11. The measurement of each block is one square unit.

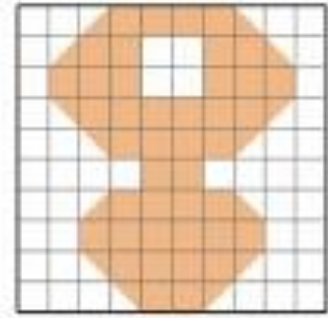
Work out the area of each shape. (2)

11.1



4 square units ✓

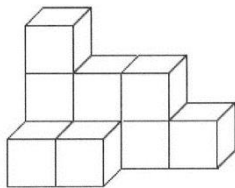
11.2



49 square units ✓

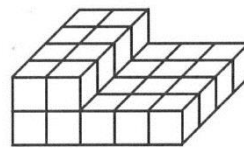
12. Give the volume of these objects in cubes. (2)

12.1



10 cubes ✓

12.2



28 cubes ✓

### **SECTION D: Calculations and Problem Solving**

Please show your working out for these sums.

13. The area of a square is  $25\text{cm}^2$ . What is its perimeter? (5)

$$\text{Area} = \ell \times w$$

$$\text{one side} = 5 \text{ cm } \checkmark$$

$$25 = \ell \times w \checkmark$$

$$\text{Perimeter} = s \times 4$$

$$25 = 5 \text{ cm} \times 5 \text{ cm } \checkmark$$

$$= 5 \times 4 \checkmark$$

$$= 20 \text{ cm } \checkmark$$

Ans: Perimeter = 20 cm

14. Look at the diagram. What is the measurement of the side labelled **w**? (4)

$$\text{Perimeter} = \ell + \ell + w + w \quad \checkmark$$

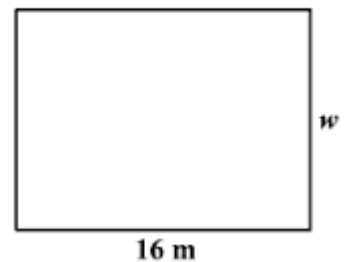
$$56 = 16 + 16 + w + w$$

$$56 - 32 = w + w \quad \checkmark$$

$$24 \div 2 = w \quad \checkmark$$

$$12 \text{ m} = w \quad \checkmark$$

Perimeter = 56 m



(CHECK:  $P = (2 \times \ell) + (2 \times w)$ )

$$56 = 2 \times 16 + 2 \times 12$$

$$56 = 32 + 24 \quad \text{CORRECT}$$

Ans: The measurement of the side is 12 m

**THERE WOULD BE A NUMBER OF METHODS TO CALCULATE THE ANSWERS TO NUMBERS 10 Shape B, 13 and 14. WORKING NEEDS TO BE SHOWN LOGICALLY.**

**TOTAL: 50 marks**