

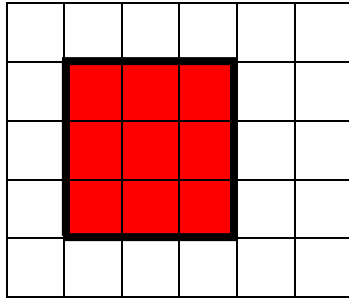
**Subject:** Mathematics  
**Level:** Standard Four  
**Strand:** Measurement  
**Topic:** Area

**Key Points:**

- ✚ Area is the measurement of the enclosed surface of a shape.
- ✚ Area tells the amount of space that a shape covers.
- ✚ Square units such as square centimetre ( $\text{cm}^2$ ), square metre ( $\text{m}^2$ ) and square kilometre ( $\text{km}^2$ ) are used to record area of a shape.
- ✚ Area of a square =  $\mathbf{S \times S}$  or  $\mathbf{S^2}$ .
- ✚ Area of a rectangle =  $\mathbf{L \times W}$ .

Here are some examples.

EXAMPLE 1:



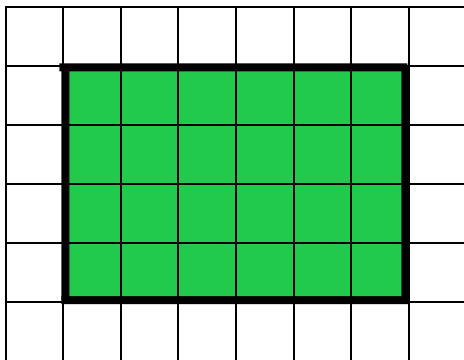
Each  is  $1\text{cm}^2$

In the red square above, the length is of each side is 3 cm.

To calculate the area of the red square, use the formula  $\text{Side} \times \text{Side}$  or  $\text{Side}^2$ .

$$\begin{aligned} \text{Area} &= S \times S \\ &= 3 \text{ cm} \times 3 \text{ cm} \\ &= 9 \text{ cm}^2 \end{aligned}$$

EXAMPLE 2:



Each  is  $1\text{cm}^2$

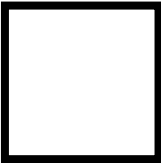


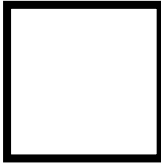
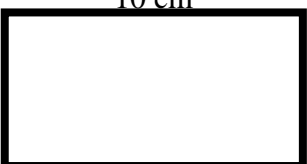
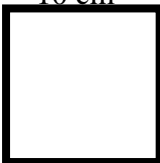


In the green rectangle above, the length is 6 cm and the width is 4 cm.

To calculate the area of the green rectangle, use the formula  $\text{Length} \times \text{Width}$ .

$$\begin{aligned} \text{Area} &= L \times W \\ &= 6 \text{ cm} \times 4 \text{ cm} \\ &= 24 \text{ cm}^2 \end{aligned}$$

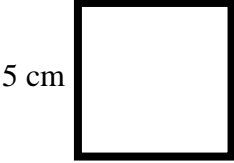
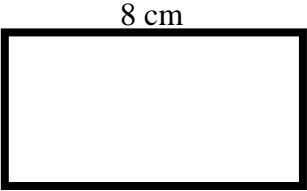

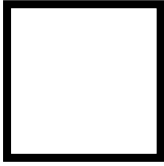

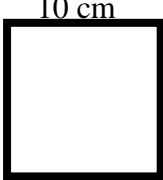
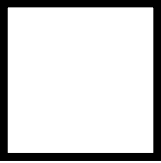

### PRACTICE EXERCISE

For each shape below, not drawn to scale, calculate its area.

<p>1)</p>  <p>5 cm</p> <p>Area = <math>S \times S</math> = <math>5 \text{ cm} \times 5 \text{ cm}</math> = ____ <math>\text{cm}^2</math></p>	<p>2)</p>  <p>8 cm</p> <p>3 cm</p> <p>Area = <math>L \times W</math> = <math>8 \text{ cm} \times 3 \text{ cm}</math> = ____ <math>\text{cm}^2</math></p>
<p>3)</p>  <p>5 cm</p> <p>9 cm</p>	<p>4)</p>  <p>8 cm</p>
<p>5)</p>  <p>10 cm</p> <p>6 cm</p>	<p>6)</p>  <p>10 cm</p>
<p>7)</p>  <p>15 cm</p>	<p>8)</p>  <p>12 cm</p> <p>20 cm</p>

# ANSWERS

For each shape below, not drawn to scale, calculate its area.

<p>1)</p>  <p>5 cm</p> $\begin{aligned} \text{Area} &= S \times S \\ &= 5 \text{ cm} \times 5 \text{ cm} \\ &= 25 \text{ cm}^2 \end{aligned}$	<p>2)</p>  <p>8 cm 3 cm</p> $\begin{aligned} \text{Area} &= L \times W \\ &= 8 \text{ cm} \times 3 \text{ cm} \\ &= 24 \text{ cm}^2 \end{aligned}$
<p>3)</p>  <p>5 cm 9 cm</p> $\begin{aligned} \text{Area} &= L \times W \\ &= 9 \text{ cm} \times 5 \text{ cm} \\ &= 45 \text{ cm}^2 \end{aligned}$	<p>4)</p>  <p>8 cm</p> $\begin{aligned} \text{Area} &= S \times S \\ &= 8 \text{ cm} \times 8 \text{ cm} \\ &= 64 \text{ cm}^2 \end{aligned}$
<p>5)</p>  <p>10 cm 6 cm</p> $\begin{aligned} \text{Area} &= L \times W \\ &= 10 \text{ cm} \times 6 \text{ cm} \\ &= 60 \text{ cm}^2 \end{aligned}$	<p>6)</p>  <p>10 cm</p> $\begin{aligned} \text{Area} &= S \times S \\ &= 10 \text{ cm} \times 10 \text{ cm} \\ &= 100 \text{ cm}^2 \end{aligned}$
<p>7)</p>  <p>15 cm</p> $\begin{aligned} \text{Area} &= S \times S \\ &= 15 \text{ cm} \times 15 \text{ cm} \\ &= 225 \text{ cm}^2 \end{aligned}$	<p>8)</p>  <p>12 cm 20 cm</p> $\begin{aligned} \text{Area} &= L \times W \\ &= 20 \text{ cm} \times 12 \text{ cm} \\ &= 240 \text{ cm}^2 \end{aligned}$