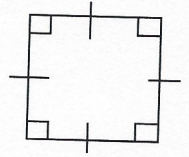


**Section 1.1 – Square Numbers and Area Models**

*Discuss page 4 and 5*



**Recall:**

A quadrilateral is a \_\_\_\_\_.

A square \_\_\_\_\_  
\_\_\_\_\_.

A square can also be referred to as a \_\_\_\_\_.

A rectangle \_\_\_\_\_.

**Is every square a rectangle?**

**Is every rectangle a square?**

*Investigation P.6*

How is the side length of a square related to its area???

**Remember:**

Area of a square \_\_\_\_\_

Area of a rectangle: \_\_\_\_\_

Area of a parallelogram: \_\_\_\_\_

Area is always denoted in units squared. i.e.:  $\text{cm}^2$ ,  $\text{m}^2$ ,  $\text{mm}^2$ **Perfect Squares:**

When a number is multiplied by itself, the result is the square of that number.

Whole numbers multiply by themselves to produce \_\_\_\_\_.

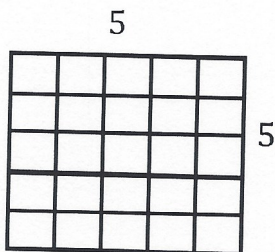
Example:  $1 \times 1 = 1$ ,  $2 \times 2 = 4$ ,  $3 \times 3 = 9$ ,  $4 \times 4 = 16$ ,  $5 \times 5 = 25$  ...

Example

$$4^2 = 4 \times 4 = 16$$

16 is a \_\_\_\_\_, because it is the product of two identical numbers ( $4 \times 4 = 16$ )

We can model perfect squares as such:

Power  $\{ 5^2$ 
**Exponent:** indicates the number of times the base is multiplied by itself

**Base:** the number that is multiplied repeatedly by itself as indicated by the exponent.

**Example:**

Show that 36 is a square number. Use a diagram, symbols, and words.

**Example 2:**

If a square picture has an area of 49 units<sup>2</sup>, what is its side length?

What would be the perimeter?

**Textbook:** Page 8-9 #'s, 2, 3, 5, 8, 9, 11, 12, 14, 17