

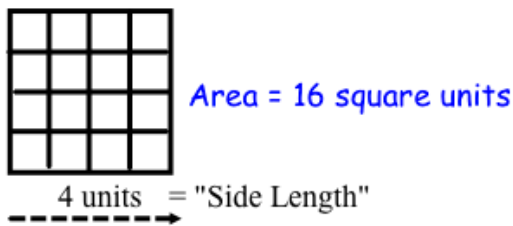
Concept 7 **Square Numbers and Area Models**

- a **Square Number** is a "*Perfect Square*"
- when you multiply a number by itself, you *square the number*.

**Application:** When a "Carpet Installer" (or a "Roofer") calculates how much material he will need to complete a room, he calculates the amount of Square units (either feet or metres)

Square Number	Product Form	Exponent Form
16	4 x 4	4 <sup>2</sup>
49	7 x 7	7 <sup>2</sup>

The **Perfect Square** from 1 to 100 are: **1, 4, 9, 16, 25, 36, 49, 64, 81, and 100**



**16** is a **Perfect Square** because you can create a square with an **Area** of 16 square units using square tiles.

**We say:** Four squared is sixteen

**"20"** is Not a perfect square because you cannot create a square with an area of 20 square units using tiles.

**Complete the Following Chart - they are all Squares**

Base (cm)	Height (cm)	Perimeter (cm)	Area (cm <sup>2</sup> )
6	6	24	36
			81
		28	
10	10		
			64