6-1 Squares and Cubes Terms and Definitions

Notes:
- Exponent - the superscript number that tell you how many times to write down the base and multiply.
- Exponents and powers are synonyms.
- Base - The value being raised to the power.
- Square or squaring a number - using an exponent of 2.
- Nickname is square because to find the area of a square, you take the length of one side of a square to the second power.
- Cube or cubing a number - using an exponent of 3.
- Nickname is cube because to find the volume of a cube, you take the length of one side of a cube to the third power.
- $\sqrt{}$ is the radical sign also called the root.
- The root is the inverse operation of the exponent.
- $\sqrt[3]{}$ - the 3 is the index.
- $\sqrt{}$ - has an index of 2.
- $\sqrt{16}$ = 4 only take positive answer when the radical is already in the problem.
- $\sqrt[3]{8}$ - the 8 is the radicand
- The index asks, what number to that power gives you the radicand.
- Perfect squares are 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, …
- Perfect cubes are 1, 8, 27, 64, 125, …