

## I. Basic Notation / Definition (p.311) –

If “ $b$ ” is any number and “ $n$ ” is a whole number  
then:  $b^n = \overbrace{b \times b \times b \times \dots \times b \times b}^{\text{“n” factors of “b”}}$

$$i.e., \quad b^2 = b \times b, \quad b^3 = b \times b \times b, \quad etc.$$

## II. Simplifying Properties (pp.312-313):

$$1. \quad b^m \times b^n = b^{m+n}$$

$$2. \quad (b^m)^n = b^{m \times n}$$

$$3. \quad (a \times b)^n = a^n \times b^n$$

## III. Examples (p.315): Problems #2-60(even)

## IV. Scientific Notation (p.314):

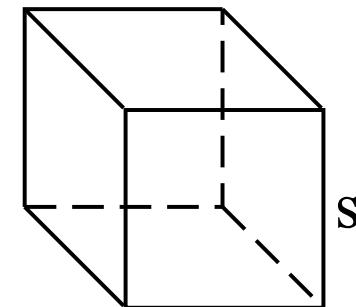
$$a \times 10^n$$

where...  $1 \leq a < 10$  & “n” is an integer

## V. Examples (p.317): Problems #66-76(even)

## VI. Volume of a Cube (p.314):

1.  $V = s^3$  ( $s$  = length of any side)
2. Examples (p.318): Problems #78,80



HW: pp.316-318/Exercises#1-59(odd),65-79(odd),  
85,87,89

Read pp.321-328 (section 5.2)