**Exponents and Square Roots**

Exponents are the little superscript numbers following a number or a variable.

22 or 2 x 2 or 4

23 or 2 x 2 x 2 or 8

For exponents with the same base, add the exponents:

a n · a m = a n+m

Example:

23 · 24 = 23+4 = 27 = 2·2·2·2·2·2·2 = 128

For exponents with different bases, multiply a and b first:

a n · b n = (a · b) n

Example:

32 · 42 = (3·4)2 = 122 = 12·12 = 144

When asked to simplify a problem like this, the outside superscript becomes the denominator.

Means to find the square root of a number. Some numbers are easy or perfect squares like 4 (2 x 2) or 9 (3 x 3) or 100 (10 x 10)

To find the square root of a number using a calculator, type in the number and then press the sign.

Means to find the factor that can be multiplied that many times to equal the number under the sign.

because 2 x 2 x 2 = 8 So the answer is 2

because 4 x 4 x 4 x 4 = 256 So the answer is 4

A square root times itself will equal the number under the sign.