# **Vocabulary & Notation**

# There is no more important factor that affects student achievement than vocabulary and notation. Teach it explicitly!

## Mathematical Synonyms

Solve the equation

Find the roots

Find the zeros

Find the solution set

Find the values of the variable that makes the open sentence true

### **Double meanings**

Operation; surgery or add, sub, mult or divide

Mean; not nice or measure of central tendency

Median; island in road or measure of central tendency

Total; breakfast cereal or answer to add problem

Product; something for sale or answer in mult problem

Volume; turn up the sound or measure of capacity

Root; part of a plant or an answer in alg

### **Notation**

Multiplicative Inverse  $\forall x \in \mathbb{R} \exists ! \frac{1}{x} \ni x \cdot \frac{1}{x} = 1$ For all x's that belong to the Real Numbers, there exists a unique x such that  $x \cdot \frac{1}{x} = 1$ 

Multiplication Property – Exponents:  $a^m a^n = a^{m+n}$ When you multiply exponentials with the same base, you add the exponents.