

**Prealgebra ~ Lesson 13**

Work the following examples as you listen to the recorded lecture.

**Order of Operation**

Review the rules in the *Order of Operations House*:

<p><b>Order of Operations</b></p> <p>Mathematical operations must be completed in the correct order by operation. The rules are simple and easy to remember – just follow the signs in the house, working from top to bottom and left to right:</p> <ol style="list-style-type: none"> <li>1. <b>P</b>arentheses - Roof</li> <li>2. <b>E</b>xponents - Attic</li> <li>3. <b>M</b>ultiplication and <b>D</b>ivision – 2<sup>nd</sup> Floor</li> <li>4. <b>A</b>ddition and <b>S</b>ubtraction – 1<sup>st</sup> Floor</li> </ol> <p>Each floor of the house must be cleared before you can go down to the next level.</p> <p><i>Work top to bottom, left to right... just like reading a book!</i></p>		<ol style="list-style-type: none"> <li>1. <b>Roof</b></li> <li>2. <b>Attic</b></li> <li>3. <b>2<sup>nd</sup> Floor</b></li> <li>4. <b>1<sup>st</sup> Floor</b></li> </ol>
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Example 1:

$$-2^4$$

Example 2:

$$7(-6) + 3$$

Example 3:

$$5 + 9 \cdot 4 - 20$$

Example 4:

$$\frac{20-15}{-1}$$

Example 5:

$$8 + (-4)^2$$

Example 6:

$$|-3 + 7| \cdot 7^2$$

Example 7:

$$(2 - 7)^2 \div (4 - 3)^4$$

Example 8:  $3(-10) \div [5(-3) - 7(-2)]$