

**Notes: T1-02 Order of Operation**

Date \_\_\_\_\_ Period \_\_\_\_\_

**Parenthesis** – This means do anything contained within a grouping symbol (parenthesis, brackets, division bars, square roots, exponents, absolute value, etc). Follow the order of operations within the grouping symbol

**Exponents** – This means evaluate any exponents

**Multiply/Divide** – This means do all multiplication and division (from left to right)

**Add/Subtract** – This means do all addition and subtraction (from left to right)

Simplify completely (You must show at least two steps on each problem. Problems with an expression with a fraction bar must show two steps each for the top and bottom)

1.)  $5 \cdot 2 + 9 \cdot 3$

2.)  $6 \cdot 2 \div (3 \cdot 4) - 1$

3.)  $3 + 9 - \frac{15}{-5}$

4.)  $11 - [3(5 - 2)]$

5.)  $4 + 6 + 6 - 4 - 6$

6.)  $3 \div 3 + 6^2 + 2$

$$7.) 3^3 - 3(8 \div 2)]$$

$$8.) \frac{(4-2) + 2^{3-2}}{3(4-1)}$$

$$9.) \frac{10 \div 2 \cdot 3}{18 - 8 - 6}$$

$$10.) \frac{2}{5} - \frac{5}{2} + \frac{8}{5}$$

$$11.) \frac{2^2(4-8 \div 4)}{2(5-2)}$$

$$12.) \frac{5^2 + 5}{-(6-3)}$$

$$13.) 6 + [(4-2)3] + \frac{18}{3}$$

$$14.) 3(7-6)^2 + 4^2 \div 2$$

$$15.) \frac{(6-4) + 9 \div 3^2}{16 \div 4 + 2}$$