

## Evaluating Expressions simplify

no =

To evaluate a numerical expression involving more than one operation, follow the order of operations:

1. **P**arenthesis ( ) [ ] [ ( ) ]
2. **E**xponents (  $y^2$   $8^2$  )
3. **M**ultiplication \* · x 3(8) what you see first
4. **D**ivision ÷ /  $\frac{3}{4}$  from left to right
5. **A**ddition + what you see
6. **S**ubtraction - first from left to right

Example 1: Evaluate the expression.

$$2 - (4 - 7)^2 \div (-6)$$

$$2 - (-3)^2 \div (-6)$$

$$2 - 9 \div (-6)$$

$$2 + 1.5$$

$$3.5$$

$$3 + (10 - 2) \cdot 5 - 4$$

$$3 + \underline{8 \cdot 5} - 4$$

$$3 + 40 - 4$$

$$43 - 4$$

$$39$$

To evaluate a variable expression, substitute a value for each variable and use the order of operations to simplify.

Example 2: Evaluate the expression.

$$x^2 + x - 18 \text{ when } x=5$$

$$(5)^2 + (5) - 18$$

$$\underline{25 + (5) - 18}$$

$$30 - 18$$

$$12$$

Name  
Evaluating Expressions  
pg. 670 #1-18

Notes Distributive Property