

# Warm-Up

# October 23, 2015

A.  $(-4)^2 - 3(-9 \div 3)^2$

$16 - 3(-3)^2$

$16 - 3(9)$

$16 - 27 = -11$

B. Express as a single power. then Evaluate

1.  $3^9 \times 3^6$  *single power*

$3^{9+6}$

$3^{15}$

14 348 907

2.  $(-4)^9 \div (-4)^5$

$(-4)^{9-5}$

$(-4)^4$

256

# Homework Questions???

Use exponent laws when they apply!

Simplify THEN Evaluate

# BEDMAS

$$\frac{10^4 \times 10^3}{10^2}$$

1)

$$\frac{10^{4+3}}{10^2} = \frac{10^7}{10^2} = 10^5 = 100000$$

*Simplified answer*

$$(-4)^3 \div (-4)^2 \times (-4)^{10}$$

2)

$$(-4)^{3-2+10} = (-4)^{11} = -4194304$$

$$3^2 \times 3^1 + 2^2 \times 2^4$$

3)

$$3^{2+1} + 2^{2+4} = 3^3 + 2^6 = 27 + 64 = 91$$

*simplified*

4)

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

$$6(6^{6-2}) - 6^4 = 6(6^4) - 6^4 = 6^{1+4} - 6^4 = 6^5 - 6^4$$

$$7776 - 1296$$

$$6480$$

Simplify [use the laws of exponents when multiply and divide].

$$1) \quad 5^3 \times 5^2$$

$5^{3+2}$

$5^5$

$$2) \quad (-3)^8 \div (-3)^4$$

$(-3)^{8-4}$

$(-3)^4$

$$3) \quad 1^2 \times 1^4 - 1^3$$

$1^{2+4} - 1^3$

$1^6 - 1^3$

$$4) \quad \frac{4^2 \times 4^4}{4^2 \times 4^1}$$

$4^6$

$4^3$

$4^3$

**Simplify**

Look for any law to follow!!!!

$$a) \quad (-3)^6 \div (-3)^5 - (-3)^5 \div (-3)^5$$

$$\boxed{(-3)^1 - (-3)^0}$$

$$(-3) - (-3)^0$$

$$b) \quad \frac{(-2)^6}{(-2)^3 \times (-2)^2}$$

$$\frac{(-2)^6}{(-2)^5} = (-2)^1 \text{ or } (-2)$$

Simplify, if possible, THEN evaluate

$$5^2 + 5^3$$

$$25 + 125$$

$$150$$

$$5^2 \times 5^3$$

$$\boxed{5^5}$$

$$3125$$

Simplify, if possible, then Evaluate

a)  $3^3 \times 3^4 - 3^5 \times 3$

$$3^7 - 3^6$$

$$2187 - 729$$

$$1458$$

b)

$$\frac{(-2)^6 \times (-2)^2}{(-2)^3 \times (-2)^0}$$

$$\frac{(-2)^8}{(-2)^3}$$

$$(-2)^5$$

$$-32$$

*Simplified  
answer*

$$\begin{aligned} c) & \quad [(-2)^4 \times (-2)^3] - [(-3)^4 \div (-3)^3] \\ & \quad (-2)^{4+3} - (-3)^{4-3} \\ & \quad (-2)^7 - (-3)^1 \\ & \quad -128 - -3 \\ & \quad -125 \end{aligned}$$



# Simplify

$$\frac{10^5}{10^3} + 10^2$$
$$\boxed{10^2 + 10^2}$$



Homework

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10 A,C,E

11

13A,C,E,G

**Simplify**

**then**

**evaluate!!!**

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15 show the work for the right  
answer!!!

