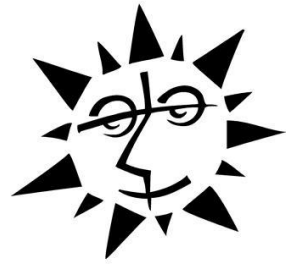


Section 1.1/1.2  
Alg 2 Trig G Notes



# PEMDAS

Order of Operations!

P - parentheses

E - exponents

M/D - multiplication/division (from left to right)

A/S - addition/subtraction (from left to right)

Evaluate each expression:

1.  $(x - y)^3 + 3$  if  $x = 1$  and  $y = 4$

$$(1 - 4)^3 + 3$$

$$(-3)^3 + 3$$

$$-27 + 3$$

$$\textcircled{-24}$$

2.  $s - t(s^2 - t)$  if  $s = 2$  and  $t = 3.4$

$$2 - 3.4(2^2 - 3.4)$$

$$2 - 3.4(4 - 3.4)$$

$$2 - 3.4(.6)$$

$$2 - 2.04$$

$$\textcircled{-.04}$$

3.  $\frac{8xy + z^3}{y^2 + 5}$  if  $x = 5$ ,  $y = -2$ , and  $z = -1$

$$\frac{8(5)(-2) + (-1)^3}{(-2)^2 + 5}$$

$$\frac{-80 + -1}{4 + 5}$$

$$\frac{-81}{9}$$

$$\textcircled{-9}$$

Review! Simplify the Expression.



1.  $4(3a-b) + 2(b+3a)$

$$12a - 4b + 2b + 6a$$

$$18a - 2b$$

2.  $2(3x-y) + 4(2x+3y)$

$$6x - 2y + 8x + 12y$$

$$14x + 10y$$

**YOU TRY!**

For #1 and 2, EVALUATE THE EXPRESSION.

1.  $5x(2(y-z))^2$  if  $x=-4, y=3, z=-1$

$$5 \cdot -4 (2(3 - (-1)))^2$$

$$-20 (2 \cdot 4)^2$$

$$-20 (8)^2$$

$$-20 (64)$$

$$\boxed{-1280}$$

2.  $\frac{ab^2+3c}{4(a+b)^3}$  if  $a=-2, b=1, c=6$

$$\frac{(-2)(1)^2 + 3(6)}{4(-2+1)^3}$$

$$\frac{-2+18}{4(-1)^3}$$

$$\frac{16}{-4}$$

$$\boxed{-4}$$

For #3 and 4, SIMPLIFY THE EXPRESSION.

3.  $5(\overbrace{d+2e}) - 3(\overbrace{-2f-d})$

$$5d + 10e + 6f + 3d$$

$$\boxed{8d + 10e + 6f}$$

4.  $\frac{1}{2}(10q-2r) + \frac{1}{3}(9r-30s)$

$$5q - r + 3r - 10s$$

$$\boxed{5q + 2r - 10s}$$