Honors Advanced Algebra

DATE: 8|26|14

Review Key Concepts – Day 1

PEMDAS - Follow order of operations

1. Parenthesis
2. Exponents
3. Multiplication
4. Division
5. Addition
6. Subtraction

From left to right

Evaluate each expression.

1) $((-16-(-2+1))\cdot 2)\div 5$

$= ((-16-(-1))\cdot 2)\div 5$

$= ((-16+1)\cdot 2)\div 5$

$= ((-15)\cdot 2)\div 5$

$= (-30)\div 5 = \boxed{-6}$

Think $(-3)^2 = (-3)\cdot(-3) = 9$

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

$(-3)^2\div 4$

$9\div 4 = \boxed{\frac{9}{4} = 2.25}$

6) $75 = 3(-6n-5)$ Distribute

$75 = -18n - 15$

$+15 \quad +15$

$90 = -18n$

$\frac{90}{-18} = \frac{-18n}{-18}$

$\boxed{-5 = n}$

7) $-10n+3(8+8n) = -6(n-4)$

Evaluate the following expression using the

Evaluate the following expression using the values given.

Substitute values into expression

3) $-3 \div 3(a + c(b+5) - (-6 + a))$ if $a = 1,\ b = -6,\ c = -4$.

$-3 \div 3(1 + (-4)(-6+5) - (-6+1))$

P
E
M
D
A
S

$= -3 \div 3(1 - 4(-1) - (-5))$

$= -3 \div 3(1 + 4 + 5)$

$= -3 \div 3(10) = -1 \cdot 10 = \boxed{-10}$

Simplify the expression.

4) $-10(x-7) - 7(x+2)$

$-10x + 70 - 7x - 14$

Combine Like terms

$\boxed{-17x + 56}$

7) $-10n + 3(8 + 8n) = -6(n-4)$ Distribute

$-10n + 24 + 24n = -6n + 24$ Combine Like terms

$14n + 24 = -6n + 24$

$+6n \quad +6n$

$20n + 24 = 24$

$-24 \quad -24$

$\frac{20n}{20} = \frac{0}{20}$

$\boxed{n = 0}$

8) $-11 + 10(p + 10) = 4 - 5(2p + 11)$

8) $-11 + 10(p + 10) = 4(-5(2p + 11))$

$-11 + 10p + 100 = 4 - 10p - 55$

$10p + 89 = -51 - 10p$

$+10p \qquad +10p$

$20p + 89 = -51$

$-89 \quad -89$

$\frac{20p}{20} = \frac{-140}{20}$

$p = -7$

Solve each equation for the indicated variable.

5) $-3(4r - 8) = -36$

$-12r + 24 = -36$

$-24 \quad -24$

$\frac{-12r}{-12} = \frac{-60}{-12}$

$r = 5$