Topic 1

ALGEBRA 2 POWERPOINTS

Warm Up

1. Simpify: -4(1-3n) – (n+5) = 5(2-7n)

19/46 ?

2. Evaluate: $-2x^2 + 4y^2 - x$, when x =-2 and y = 1

-3

3. *What is the quotient bof -45 and -9* 5

4. *Solve for a.* $ax^2-7a= 13$ $\frac{13}{x^2-7}$

5. Solve and Graph: -1/4 x +6 > 3

1. Give the reciprocal of the following numbers:

A.) 5/3 3/5

B.) 6 1/6

C.) -7/3 -3/7

D.) -4 1/6 -6/25

2. Give the opposite of each of the following numbers:

A.) 5/3 -5/3

B.) 6 -6

C.) -7/3 7/3

D.) -4 1/6 4 1/6

3. Use the distributive property to remove the parentheses from each expression:

A.) $3(c+3)$ $3c+9$

B.) $5(6y-7)$ $30y-35$

C.) $-2x(4-5x)$ $-8x+10x^2$

D.) $(5x - 7)(4)$ $20x -28$

E.) $x(y+8)$ $xy+8x$

F.) $-4(3a+9)$ $-12a-36$

4A.) What is the product of -5 and 2?

-10

4B.) What is the sum of 3 and 4 ½ ?

7 1/2

4C.) What is the quotient of 12 and -4?

-3

4D.) What is the quotient of -4 and 12?

-1/3

4E.) What is the difference of -9 and 5?

-14

4F.) What is the difference of 5 and -9?

14

5. Evaluate:

A.) $-x^2 - x + 9$ when $x = -4$ -3

B.) $3a^2 + (b-a)$ when $a = 5$ and $b=-2$ 68

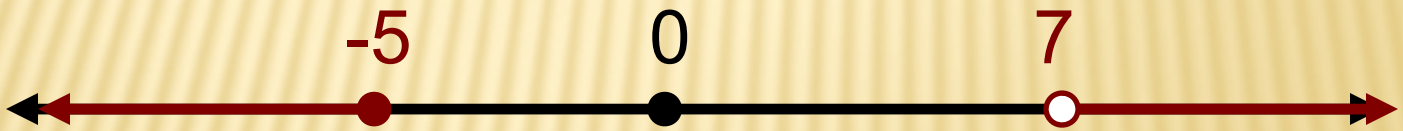
C.) $(6-8n) \div n^3$ when $n = -1$ -14

D.) $10y-6c^2$ when $y = \frac{1}{2}$ and $c = -2$ -19

6. Sketch a number line graph of each of the following inequalities

A.) $-5 < x < 10$

B.) $x > 7$ or $x \leq -5$



7. Solve for the specific variable.

A.) Solve for π. $C = \pi d$

B.) Solve for k. $3n+6k=18$

C.) Solve for b_1. $A= \frac{1}{2}h(b_1+b_2)$

D.) Solve for c. $d = 6(2c-x)$

E.) Solve for a. $ax + ay = w$

F.) Solve for x. $b^2x-4x= 2$

G.) Solve for P. $F= pr^2+pt$

H.) Solve for m. $K=3/4(b+m)$

8. Solve for the variable in each of the following equations

A.) $7(x-2)+4=23$ $x = 33/7$

B.) $4x-(2x-4)=3x + 6$ $x = -2$

C.) $2/3n+1/5n = 26$ $n = 30$

D.) $2(-4-3y)-(2y-1)=5(3-6y)$ $y = 1$

9. Solve for the variable in each of the following inequalities

A.) $8c-6<18$ $c<3$

B.) $-4y+2(y-4)\geq 12$ $y\leq -10$

C.) $10n+16>5n-6$ $n>-22/5$

D.) $-y-(4y+6)\leq -(y+6)$ $y\geq 0$

E.) $5+(2-x)>2(4x-8)$ $x<23/9$

F.) $-1/3\ y+6\leq -7$ $y\geq 39$

8. working...

B.) $-4y+2(y-4)\geq 12$

D.) $-y-(4y+6)\leq -(y+6)$

10. Solve for x in each of the following absolute value equations

A.) $|6x + 4| = 20$ $x = 16/6, x = -4$

B.) $|1/3\ x - 6| = 7$ $x = 39, x = -3$

C.) $3|-4x+5| = 75$ $x = -5, x = 15/2$

D.) $5|2x-4|-3=12$ $x = 7/2, x = 1/2$

E.) $5-8|x-5|=-11$ $x = 7, x = 3$

F.) $4+3|x-2|=19$ $X = 7, x = -3$

11. Solve for x in each of the following absolute value inequalities

A.) $|2x + 4| \leq 20$

B.) $|3 - x| > 2$

C.) $3|-4x-8| < 12$

D.) $4|3+x|-5 \geq 15$

E.) $\frac{|x-5|}{3} < 6$

F.) $\frac{|x+4|}{7} \geq 2$

G.) $\frac{|4x+3|}{2} \leq 4$

H.) $\frac{|5x-5|}{3} > 8$

12. Graph these please…

A.) $20 < 2x + 6 < 50$

B.) $200 > -4x - 8 > -12$