Name: _____ Date: _____

Period: 1 2 3 7

Honors Algebra Beginning of Year Review

This assignment is optional; however, it is strongly recommended that you review all of these skills to be sure you remember how to do them from last year. No calculator is permitted on this assignment.

Simplify:

1.) $-5(-1+6)^2$

-125

2.) $(-2)^3(-3)^2$

-72

3.) $-\frac{15}{15}+\frac{150}{10}$

14

4.) $-1\frac{1}{4}-2\frac{15}{16}$

$-4\frac{3}{16}$

5.) $2\frac{8}{9}-4\frac{1}{3}$

$-1\frac{4}{9}$

6.) $-9\frac{2}{3}+7\frac{11}{12}$

$-1\frac{3}{4}$

7.) $\left(1\frac{2}{3}\right)\left(-6\frac{2}{5}\right)$

$-10\frac{2}{3}$

8.) $-2\frac{4}{5}\div -1\frac{3}{4}$

$1\frac{3}{5}$

9.) $-8.95+2.7$

-6.25

10.) $(-6.4)(-2.65)$

16.96

11.) $\frac{8.4}{-1.25}$

-6.72

12.) $8+2(-4-3)^2\cdot 2$

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Write each as an algebraic expression:

13.) Six less than twice a number

$2x-6$

14.) Half the difference of a number and 13

$\frac{1}{2}(x-13)$

15.) Double the sum of a number and 5

$2(x+5)$

16.) Four less than the quotient of a number and 4

$\frac{x}{4}-4$

Evaluate for the given values: $a = -2$, $b = -3$, and $c = 4$

17.) $\frac{2a^2}{(2a)^2}$

$\frac{1}{2}$

18.) $\frac{-8b^2}{-ac}$

-9

19.) $\frac{-2b^2-a}{3a}$

$\frac{8}{3}$

20.) $2-6(a-b)^2+a^3$

-12

Simplify each expression:

21.) $6x + 2(3x - 1)$

$12x - 2$

22.) $18x - (x - 12) + 7(2x + 1)$

$31x + 19$

23.) $3 - 5(2x + 3) - 4x$

$-14x - 12$

24.) $5x + 6(x + 3y - 4) - 10(2x + y)$

$-9x + 8y - 24$

25.) $24 + 12(5x - 2) - 3(8x + 10)$

$36x - 30$

Solve:

26.) $-\frac{x}{4} - 1 = 7$

$x = -32$

27.) $8 - 3x = 128$

$x = -40$

28.) $x - 4 = \frac{3}{5}(x + 2)$

$x = 13$

29.) $6x + 3 - 8x = -13$

$x = 8$

30.) $5 - 2(x - 4) = 3(2x - 3)$

$x = \frac{11}{4}$

31.) $4(x - 2) + 2x = -40$

$x = \frac{-16}{3}$

32.) $9(x - 9) - 3 = -4(2x + 4)$

$x = 4$

33.) $6 + 4x + 7x = 3(6x - 12) - 4(x - 6)$

$x = 6$

Solve:

34.) $\frac{2}{7}x + \frac{1}{2}x = \frac{3}{4}x + 1$ $x = 28$

35.) $4\left(\frac{1}{5}x - \frac{1}{2}\right) + \frac{1}{2}x = 11$ $x = 10$

36.) $0.13y - 4.1 = 0.3y - 1.7 - 0.41y$ $y = 10$

Name the property of real numbers that justifies each statement:

Associative Property of Addition/Multiplication	Identity Property of Addition/Multiplication
Commutative Property of Addition/Multiplication	Zero Property
Distributive Property	

37.) $3(a - b) = 3a - 3b$ Distributive Property

38.) $7x + 2y + 16x = 7x + 16x + 2y$ Commutative of Addition

39.) $8x(1) = 8x$ Identity of Multiplication

40.) $4d + 0 = 4d$ Identity of Addition

41.) $(9 \cdot 13)(10) = 9(13 \cdot 10)$ Associative of Multiplication

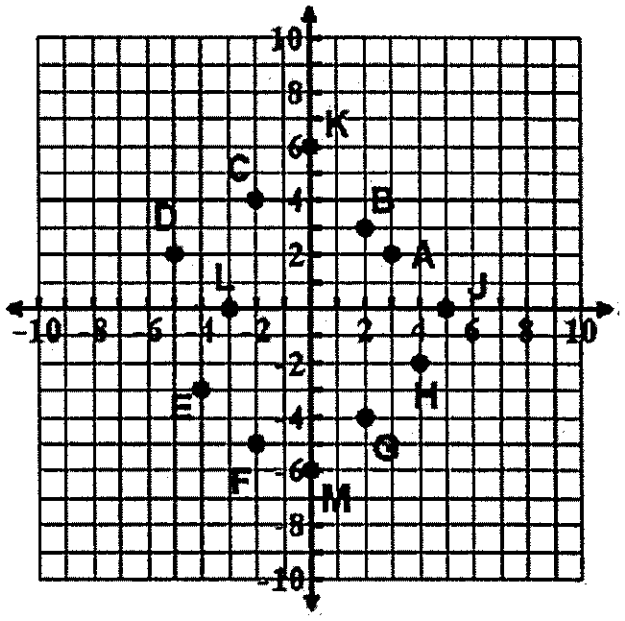
Name the coordinates of the given point:

42.) K (0, 6)

43.) H (4, -2)

44.) E (-4, -3)

45.) D (-5, 2)



In which quadrant/axis does each point lie?

46) A I

47.) M y-axis

48.) E III

49.) C II

★ Remember – always use Roman Numerals to name the quadrants!