Algebra 2 Summer Assignments Directions:

Make a print copy of the summer assignment problems.

Show all work and answers on your print copy.

Be prepared to hand in your completed assignment on the **first full day** of classes.

The topics on your assignment are listed below. If you need to review before attempting the problems on the assignment, see Khan Academy for videos to assist you.

Topics:

Order of Operations

Evaluating Expressions

Combining Like Terms

Solving Basic Equations

Properties of Numbers

Classifying Numbers

Honors ONLY: Solving inequalities and Absolute Value Equations

Summer Assignment **2019** Name_____

Algebra 2 Honors

Note: Selected answers on on the last page. Show all work !!!

Evaluate each expression. Show all steps that lead to your answer.

1) $2 + 6(3 - 1)^2$

2) $2 + 10 \div 5 + 5 \times 4$

3) $6 - 5 + 18 \div -3 \times -3$

4) $10 \div -5 + (-1 - 5)^2$

Evaluate each using the values given. Show all steps that lead to your answer.

5) $zx^2 + 4 + x$; use $x = 4$, and $z = 2$

6) $y + z - (1 + y^2)$; use $y = -3$, and $z = 2$

7) $\frac{y}{2}(y - (z + x))$; use $x = 5$, $y = -2$, and $z = 1$

8) $y^3 - -\frac{3x}{3}$; use $x = -1$, and $y = -2$

Simplify each expression. For examples 15 - 18, show all steps that lead to your answer.

9) $5v + 8 - 4x - 3v - 9x$

10) $-7(4 - 2p) - 7p$

11) $7(k-2)+2(4-4k)$

12) $-3(8-5x)-6(5+2x)$

Solve each equation. Show all steps that lead to your answer.

13) $7b-6b-16=4b-4$

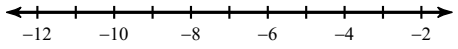
14) $272=n+6(6n-4)$

15) $4(2 + 5x) = 12x - 6(x + 8)$

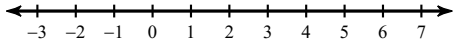
16) $-(3p - 11) - 3(6 - 3p) = 10p - 2 - 1$

Solve each inequality and graph its solution.

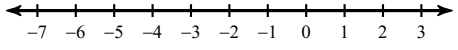
17) $24 > -n - 3n$



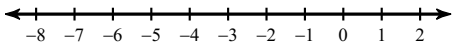
18) $x + 3 > -5 - 7x$



19) $3(-p + 4) < 22 + 7p$



20) $-5(r-1)+1<-(7r-2)$



Solve each equation.

21) $|v-2|=10$

22) $|4x+1|=19$

23) $10\left|5+k\right|+6=106$

24) $6-3\left|4n-1\right|=-111$

How can each number be classified? Circle all that apply.

25) 12

Real Number Rational Number Irrationl number

Natural Number Whole Number Integer

26) $\frac{1}{5}$

Real Number Rational Number Irrationl number

Natural Number Whole Number Integer

27) -15

Real Number Rational Number Irrationl number

Natural Number Whole Number Integer

Circle the property that is illustrated by each of the following statements.

28) $5x + 6 = 6 + 5x$

Commutative Property of Addition Associative Property of Addition

Distributive Property Additive Identity Property

29) $4(5 \cdot 3) = 4(3 \cdot 5)$

Commutative Property of Multiplication Associative Property of Multiplication

Distributive Property Multiplication Identity Property

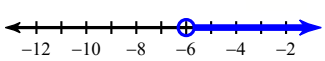
30) $6 \cdot \frac{1}{6} = 1$

Commutative Property of Multiplication Associative Property of Multiplicat

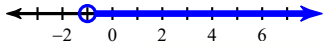
Inverse Multiplication Property Distributive Property

Answers to Algebra 2 Honors

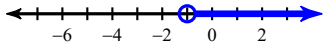
1) 26
2) 24
3) ??
4) ??
5) 40
6) −11
7) ??
8) ??
9) $2v - 13x + 8$
10) $-28 + 7p$
11) ??
12) ??
13) $\{-4\}$
14) ??
15) ??
16) $\{-1\}$
17) $n > -6$:



18) $x > -1$:



19) $p > -1$:



20) ?????
21) $\{12, -8\}$
22) $\left\{\frac{9}{2}, -5\right\}$
23) ?????
24) $\left\{10, -\frac{19}{2}\right\}$
25)
26)
27)
28)
29)
30)