

Name: _____

Date: _____

Period: 1 2 3 7

Algebra 1 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.) $(1\frac{2}{3})(-6\frac{2}{5})$

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

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

$$204$$

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.) $\frac{3}{4}x + 2 = 14$

$$x = 16$$

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

$$x = 8$$

30.) $-2(3 - d) = 4$

$$d = 5$$

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

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

32.) $9x - 13 = -31$

$$x = -2$$

33.) $-2w - 3 = -25$

$$w = 11$$

34.) $3(2x - 4) - 9x = -36$

$$x = 8$$

Name the property of real numbers that justifies each statement:

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

Identity Property of Addition/Multiplication
Zero Property

35.) $3(a - b) = 3a - 3b$

Distributive Property

36.) $7x + 2y + 16x = 7x + 16x + 2y$

Commutative of Addition

37.) $8x(1) = 8x$

Identity of Multiplication

38.) $4d + 0 = 4d$

Identity of Addition

39.) $(9 \cdot 13)(10) = 9(13 \cdot 10)$

Associative of Multiplication

Name the coordinates of the given point:

40.) K $(0, 6)$

41.) H $(4, -2)$

42.) E $(-4, -3)$

43.) D $(-5, 2)$

In which quadrant/axis does each point lie?

44.) A I

45.) M y-axis

46.) E III

47.) C II

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

