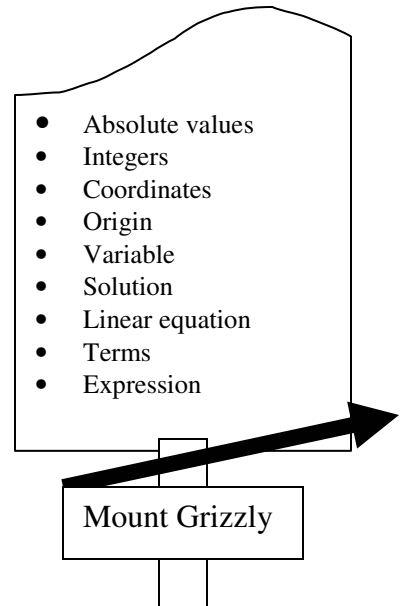


Grade 8 Summer Assignment

Choose a matching term from the sign.

1. _____ A number that replaces the variable in an equation to make the equation true.
2. _____ The point where the x-axis and the y-axis intersect on a grid.
3. _____ A sentence that uses mathematical symbols instead of words.
4. _____ The distance of a number from zero on a number line.
5. _____ The variables and numbers in a mathematical expression.
6. _____ A letter used to represent a number in a mathematical expression.

7. _____ Positive numbers (1,2,3...), negative numbers (-1, -2, -3...), and zero.



Write the absolute value.

8. $|-7| =$

9. $|34| =$

Write the integers in order from least to greatest.

10. 7, -9, 8, 0, 9, -3

11. 20, -10, -5, 5, 10, -20

Add, subtract, multiply, or divide the integers to find the answer.

12. $-22 + -1 =$ _____

13. $-6x - 4 =$ _____

14. $-300 \div 60 =$ _____

15. $(-3 \cdot 2) \div -6 =$ _____

How many terms in the expression?

16. $4p + 9 + p - x + 35x$

What is the coefficient of y?

17. $-7x + q - 13y$

Simplify the expressions.

18. $2(k + 9) + k$

19. $4z + 6x - 7z$

20. $12y - 3y + q$

Circle the correct equation to match the statement or problem.

21. Toni had 14 fewer bites than Yolanda.

a. $t - y = 14$

b. $14t = y$

c. $t = y - 14$

22. Sam had 12 more than three times the number of bites as Chad.

a. $s = c - 12 \times 3$

b. $s = 3c + 12$

c. $c = 2s$

Solve each equation.

23. $x - 37 = 21$

24. $g + (-25) = 225$

Match the property used to solve each equation.

25. $-35 \times 1 = -35$ _____

(A) Associative Property

26. $-3 + (12 + 6) = (3 + 12) + 6$ _____

(I) Identity Property

27. $20 \times -7 = -7 \times 20$ _____

(C) Commutative Property

28. $4 \times (5 + 9) = 4 \times 5 + 4 \times 9$ _____

(D) Distributive Property

(Z) Zero Property

(O) Opposites Property

Solve these equations.

29. $100 = -4n$
 $n = \underline{\hspace{2cm}}$

30. $\frac{s}{8} = 16$
 $s = \underline{\hspace{2cm}}$

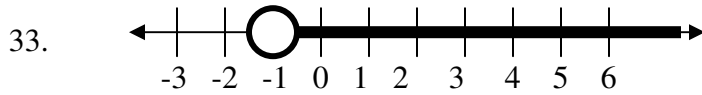
31. $p - 26 = -39$
 $p = \underline{\hspace{2cm}}$

Which inequality matches this graph? Circle one.



- a. < 3 b. ≤ 3 c. > 3 d. ≥ 3

Write the inequality shown by the graph.



Solve.

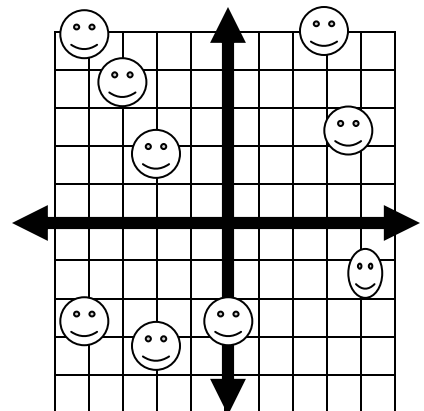
34. Is $(-3, 8)$ a solution to the equation $x - y = -5$?

35. Is $(-3, 9)$ a solution to the equation $2x + y = 3$?

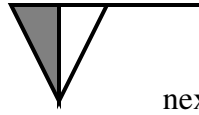
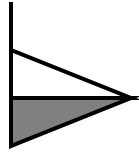
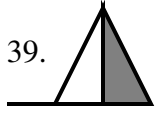
Is there a smiley face at each of these locations? Write yes or no.

36. $(4, 5)$ _____ 37. $(-3, 3)$ _____

38. $(-2, -4)$ _____



Finish the pattern. Draw the next item in the sequence.



next item- _____

Simplify.

40. $10^8 \cdot 10^4$

41. x^{-4}

42. $\frac{x^9}{x^3}$

Write in scientific notation.

43. 7,850,000

44. 0.000138

Write in standard notation.

45. 2.45×10^5

46. 3.78×10^{-3}

Solve. Express in simplest form.

47. $2 \frac{3}{8} - 1 \frac{5}{8}$

48. $4.23 - (-2.75)$

Solve.

49. A candy store had $9 \frac{1}{8}$ pounds of fancy chocolate. They sold $2 \frac{1}{2}$ pounds to a customer. How many pounds (lbs.) of chocolate were left?

Express each ratio as a unit rate.

50. Traveling 260 miles in 4 hours.

51. Reading 54 pages in 30 minutes.

Solve each proportion.

52. $\frac{x}{9} = \frac{20}{45}$

53. $\frac{14}{3} = \frac{42}{n}$

Write a proportion and solve.

54. 18 donuts in 3 boxes; 30 donuts in b boxes. Find b .

Solve.

55. What is 56% of 125?

56. 18 is what percent of 75?

57. 14 is 40% of what number?

58. At a bake sale, 63 cookies were sold. This was 75% of the number of cookies baked. How many cookies were baked?

Calculate the following square roots.

59. $\sqrt{16}$

60. $\sqrt{144}$

61. $\sqrt{48}$ is between what two integers?