Name: _____ **Class:** _____ **Date:** _____ **ID: A**

review

____ 1. You shovel snow. You charge $7 per driveway and earn $42. Let x represent the number of driveways you shoveled. Which of the following equations is an algebraic model for the situation?

a. $42x = 7$

b. $\frac{1}{7}x = 42$

c. $7x = 42$

d. $\frac{1}{42}x = 7$

Evaluate.

2. $5y + x^2$ when $y = 3$ and $x = 5$

3. $x^4 + 4(y - 2)$ when $y = 3$ and $x = 5$

4. $-2\frac{5}{6} + 3\frac{1}{4}$

5. $|-9| - 2x + 5$ when $x = 6$

6. $-\sqrt{81}$

Write an algebraic expression.

7. the quotient of m and 2

Decide whether the statement is *true* or *false*.

8. $8 \leq y^2 + 3$ when $y = 3$

9. The senior class is planning a trip that will cost $35 per student. If $3920 has been collected from the seniors for the trip, how many have paid for the trip?

10. Graph the function $y = 1.5x + 0.5$ with the domain $x = 0, 1, 2, 3, 4,$ and 5.

Find the product or the quotient.

11. $(-9)(8)\left(-\frac{5}{6}\right)$

Find the product or quotient.

12. $-56 \div \left(-\frac{7}{8}\right)$

Simplify.

13. $5(3 - z) - z$

14. An eagle dives from its nest with a velocity of $-8\frac{1}{3}$ feet per second. Find the vertical displacement in $4\frac{1}{2}$ seconds.

Write the numbers in increasing order.

15. $-6.2,\ -\sqrt{5},\ -\frac{23}{7},-\sqrt{25}$

Solve the equation if possible.

16. $2 + x = 8$

17. $19 = a - 4$

18. $-3y = -18$

19. $\frac{x}{4} = 5$

20. $17 = 5 - 3p$

21. $-\frac{3}{4}x - 2 = -8$

22. $\frac{5}{3}(9 - w) = -10$

23. $-3(x - 2) = x$

24. $-5r - 6 + 4r = -r + 2$

Solve.

25. $\frac{5}{x} = \frac{2}{8}$

26. $\frac{x+2}{3} = \frac{x+4}{5}$

27. What number is 18% of 65?

28. 32 is what percent of 20?

29. 45 is 36% of what number?

Solve for the indicated variable.

30. $C = 2\pi r, r$

31. Rewrite $3x + 4y = 15 + 6y$ so that y is a function of x.

Plot and label the points in a coordinate plane.

32. A (–5, 1), B (0, 3), C (–1, –5), D (4, 6)

Use a table of values to graph the equation.

33. $y = -x + 3$

Graph the line that has the given intercepts.

34. x-intercept 3
y-intercept: -1

Graph.

35. $3x - 2y - 2 = 0$

36. $y - 4 = -3(x + 2)$

Plot the points and find the slope of the line passing through the points.

37. (0, 1), (–2, –6)

38. Decide whether the graphs of the two equations are parallel lines. *Explain* your answer.

$y = 4x + 3,\ y = -4x - 5$

Write an equation of the line with the given slope and y-intercept. Write the equation in slope-intercept form.

39. $m = 2, b = -1$

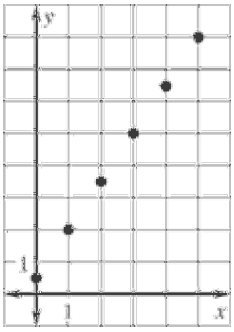
Graph the line that passes through the points. Then write an equation of the line in slope-intercept form.

40. (6, 2), (8, –4)

review

Answer Section

1. C
2. 40
3. 629
4. $\frac{5}{12}$
5. 2
6. –9
7. $\frac{m}{2}$ or $m \div 2$
8. true
9. 112 seniors have paid
10. Answer:



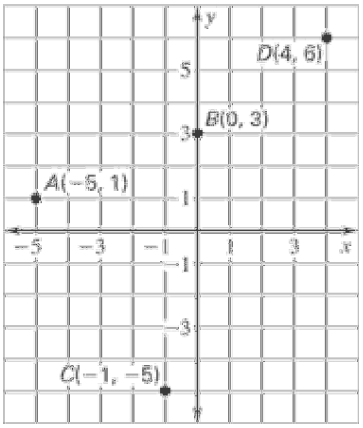
11. 60
12. 64
13. $15 - 6z$
14. $-37\frac{1}{2}$ ft
15. $-6.2,\ -\sqrt{25},\ -\frac{23}{7}, -\sqrt{5}$
16. $x = 6$
17. $a = 23$
18. $y = 6$
19. $x = 20$
20. $p = -4$
21. $x = 8$
22. $w = 15$
23. $x = \frac{3}{2}$
24. No solution
25. $x = 20$
26. $x = 1$
27. 11.7
28. 160%

29. 125

30. $r = \dfrac{C}{2\pi}$

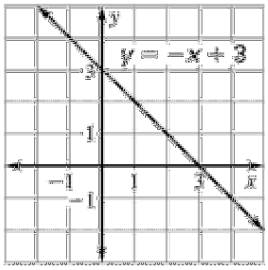
31. $y = \dfrac{3}{2}x - \dfrac{15}{2}$

32. Answer:

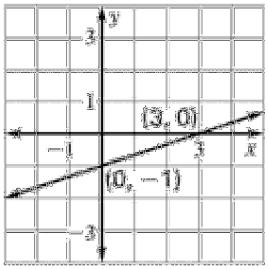


33.

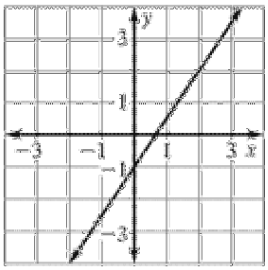
x	y
−1	4
0	3
1	2



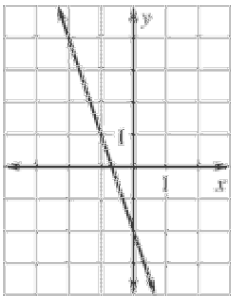
34. Answer:



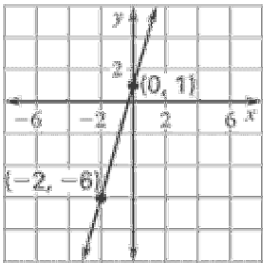
35. Answer:



36. Answer:



37. $m = \dfrac{-6-1}{-2-0} = \dfrac{-7}{-2} = \dfrac{7}{2}$



38. The lines are not parallel because they have different slopes.

39. $y = 2x - 1$

40. $y = -3x + 20$