Name_____ Date _____

Test 1 End-of-Course Test Review Chapter 6-10

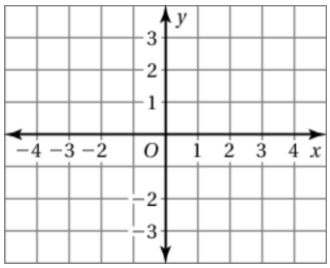
Solve.

1. $x - 7 = -13$

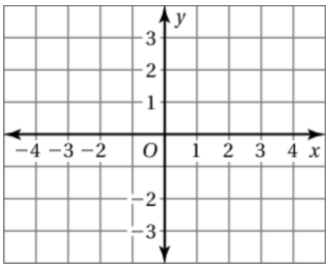
2. $15 - 3c = 3$

Find the slope and the *y*-intercept of the graph of the linear equation. Then sketch its graph.

13. $y = 3x - 2$



14. $2x + 4y = 6$



Write an equation of the line in slope-intercept form.

16. the line passing through $(0, 1)$ and $(-4, 5)$

23. Draw a mapping diagram of the set of ordered pairs.

$(2, 3), (3, 5), (4, 1), (5, 2)$

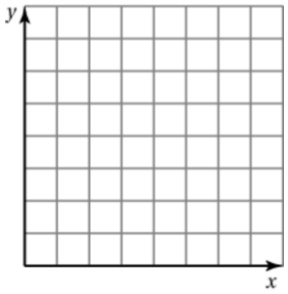
24. The table shows the cost *y* (in dollars) of *x* cold drinks.

Drinks, *x*	0	2	4	6
Cost, *y*	0	3	6	9

a. Graph the data.

b. Write a linear function that relates *y* to *x*.

c. How much does it cost to buy three drinks?



Does the equation or table represent a *linear* or *nonlinear* function?

25. $2x - 4y = 6$

26.

x	3	7	11	15
y	2	4	8	16

Evaluate the expression.

27. $-\sqrt{121} + 15$

28. $6 - 5\sqrt[3]{\frac{1}{125}}$

29. A ladder is placed against the side of a house. The top of the ladder is 12 feet above the ground. The base of the ladder is 5 feet away from the house. Find the length of the ladder.

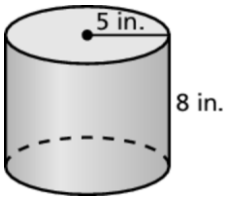
30. Between which two integers is $\sqrt{42}$? Explain.

Name_____ Date _____

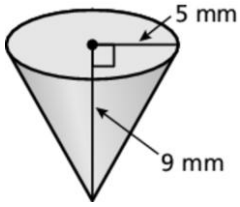
Test 1

Find the volume of the solid. Round your answer to the nearest tenth.

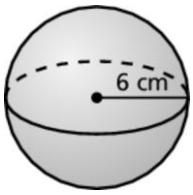
31.



32.



33.



34. The table shows the number of years of college education and hourly earnings (in dollars) for several people.

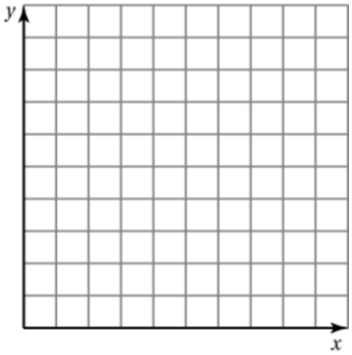
Number of Years, *x*	0	1	3	5	6
Hourly Earnings, *y*	6	8	15	25	30

a. Make a scatter plot of the data.

b. Draw a line of fit.

c. Write an equation for the line of fit.

d. Predict the hourly earnings for a person with four years of college education.



Choose an appropriate data display for the situation. Explain your reasoning.

35. the percent of students with 0, 1, 2, or more than 2 siblings

36. the average movie theater ticket price over the last ten years

Evaluate.

37. $\left(3^2\right)^{-1}$ **38.** $12^3 \bullet 12^{-4}$ **39.** $\dfrac{(-7)^6}{(-7)^4}$

Multiply. Write your answer in scientific notation.

40. $\left(4.6 \times 10^{-2}\right) \times \left(1.0 \times 10^{-8}\right)$ **41.** $\left(2.5 \times 10^{7}\right) \times \left(1.4 \times 10^{6}\right)$