

Geometry Summer Math Assignment 2026

Directions: This prep work should be completed, to the best of your ability, by the **first day of school of the first semester and turned in on July 30, to your teacher or to Ms.Baker, by the end of the school day.**

Do all problems in this packet. Do not rush through the packet, give yourself time to process and remember the skills. You will not turn in your Summer Math at registration, but you will need to bring it to class on the first day of school. Please note that all the material in the prep work was covered in previous math classes; there are no excuses. This prep work will be reviewed during the first week of class, followed by a test. Below are some websites that contain videos or notes on skills that you may need to review.

1. [khanacademy.org](https://www.khanacademy.org)
2. [youtube.com](https://www.youtube.com)
3. [coolmath.com](https://www.coolmath.com)
4. [purplemath.com](https://www.purplemath.com)

A/ Refer to your Algebra1 notebooks or the sheets/links provided for assistance.

B/ Show your work (step-by-step solutions). Circle your final answers.

C/ Write neatly and in pencil on your own paper. Number all work as it is numbered.

D/ Do not wait until the last minute to complete this assignment.

E/ Do your own work and complete all problems.

F/ Bring your Summer Math assignment with you on the first day of school.

A test on this material will be given during the first week of school. This test will be the first test grade of the course in the first nine weeks.

Geometry Summer Math Assignment For 2026-2027**Name:****Due on the first day of school 7/30/2026 for all students, in either semester.****Semester:**

Follow the instructions/method asked in the question. Show all work on paper.

List all numbers from the given set B that are members of the given Real Number subset.

1) $B = \{19, \sqrt{7}, -14, 0, 0.\bar{4}, \sqrt{4}\}$ Whole numbers 1) _____
 A) 19, 0 B) 19, -14, 0 C) 19, -14, 0, $\sqrt{4}$ D) 19, 0, $\sqrt{4}$

2) $B = \{4, \sqrt{7}, -9, 0, 0.\bar{4}, \sqrt{25}\}$ Natural numbers 2) _____
 A) 4 B) 4, $\sqrt{25}$ C) 4, 0 D) 4, 0, $\sqrt{25}$

3) $B = \{20, \sqrt{8}, -2, 0, \frac{7}{8}, \sqrt{25}, 0.\bar{9}, 0.15\}$ Rational numbers 3) _____
 A) $\sqrt{8}, \sqrt{25}$ B) 20, -2, 0, $\frac{7}{8}, \sqrt{25}, 0.15, 0.\bar{9}$
 C) 20, 0, $\sqrt{25}$ D) $\sqrt{8}, \frac{7}{8}, 0.15$

4) $B = \{10, \sqrt{8}, -4, 0, 0.\bar{9}, \sqrt{16}\}$ Integers 4) _____
 A) 10, -4, 0 B) 10, 0, $\sqrt{16}$ C) 10, -4, 0, $\sqrt{16}$ D) 10, 0

5) $B = \{14, \sqrt{5}, 0, \frac{1}{2}, \sqrt{25}, -0.\bar{4}, 0.02, -24\}$ Real numbers 5) _____
 A) 14, $\sqrt{5}, 0, \frac{1}{2}, \sqrt{25}, -0.\bar{4}, 0.02, -24$ B) 14, $\sqrt{5}, \frac{1}{2}, \sqrt{25}, -0.\bar{4}, 0.02, -24$
 C) 14, 0, $\frac{1}{2}, -0.\bar{4}, 0.02, -24$ D) 14, $\sqrt{5}, 0, \frac{1}{2}, \sqrt{25}, 0.02$

Perform the indicated operation.

6) $-70 + 68$ 6) _____
 A) -138 B) -2 C) 138 D) 2

7) $-10 - 21$ 7) _____
 A) -31 B) 31 C) -11 D) 11

8) $13 \cdot (-3)$ 8) _____
 A) 52 B) -36 C) -39 D) -52

9) $\left(-\frac{2}{9}\right) \cdot \left(\frac{1}{2}\right)$ 9) _____
 A) $-\frac{1}{6}$ B) $-\frac{3}{7}$ C) $-\frac{9}{4}$ D) $-\frac{1}{9}$

10) $-56 \div (-8)$ 10) _____
 A) 7 B) -7 C) 8 D) -8

11) $\frac{7}{3} \div \left(-\frac{1}{6}\right)$ 11) _____

A) $-\frac{18}{7}$ B) $-\frac{7}{18}$ C) $-\frac{1}{14}$ D) -14

Determine whether the statement is true or false.

12) $-14 \geq 15$ 12) _____

A) True B) False

State the name of the property illustrated.

13) $7 + (-9) = (-9) + 7$ 13) _____

A) Associative property of addition
B) Identity property of addition
C) Distributive property of multiplication over addition
D) Commutative property of addition

14) $18 \cdot (6 + 1) = 18 \cdot 6 + 18 \cdot 1$ 14) _____

A) Commutative property of multiplication
B) Associative property of multiplication
C) Distributive property of multiplication over addition
D) Commutative property of addition

Evaluate the algebraic expression for the given value or values of the variable(s).

15) $2(x + 1) + 12$; $x = -3$ 15) _____

A) 2 B) 22 C) -8 D) 8

16) $(x + 3y)^2$; $x = 2$ and $y = 3$ 16) _____

A) 22 B) 121 C) 11 D) 25

17) $x^2 - 2(x - y)$; $x = 8$ and $y = 2$ 17) _____

A) -76 B) 50 C) 52 D) 46

18) $\frac{y - 8x}{4x + xy}$; $x = -4$ and $y = 5$ 18) _____

A) $-\frac{37}{36}$ B) $\frac{3}{4}$ C) $-\frac{35}{36}$ D) $-\frac{27}{4}$

Solve.

19) The formula $C = \frac{5}{9}(F - 32)$ expresses the relationship between Fahrenheit temperature, F, and Celsius temperature, C. Use the formula to convert 50°F to its equivalent temperature on the Celsius scale. 19) _____

A) 2°C B) 10°C C) 46°C D) 32°C

- 20) A stone is dropped from a tower that is 820 feet high. The formula $h = 820 - 16t^2$ describes the stone's height above the ground, h , in feet, t seconds after it was dropped. What is the stone's height 4 seconds after it is released? 20) _____
- A) 574 ft B) 589 ft C) 539 ft D) 564 ft

Write the algebraic expression without parentheses.

- 21) $-(-9 + 4y)$ 21) _____
- A) $9 + 4y$ B) $36y$ C) $-9 + 4y$ D) $9 - 4y$
- 22) $-(5z - 3w + 6y)$ 22) _____
- A) $-5z - 3w + 6y$ B) $-5z + 3w - 6y$ C) $-5z - 3w - 6y$ D) $-5z + 3w + 6y$

Simplify the algebraic expression.

- 23) $(10z + 12) - (2z - 6)$ 23) _____
- A) $12z + 18$ B) $8z + 18$ C) $8z - 18$ D) $8z + 6$
- 24) $-6(3r + 2) + 7(2r + 6)$ 24) _____
- A) $-4r + 2$ B) $-3r - 4$ C) $-30r$ D) $-4r + 30$
- 25) $-3(2x - 10) - 4x + 9$ 25) _____
- A) $-10x + 39$ B) $-10x - 21$ C) $10x + 39$ D) $2x + 39$

Solve and check the linear equation.

- 26) $(4x + 2) - 3 = 5(x - 4)$ 26) _____
- A) $\{-19\}$ B) $\{-25\}$ C) $\{19\}$ D) $\{-3\}$
- 27) $4x + 6 + 4(x + 1) = 6x + 6$ 27) _____
- A) $\{-1\}$ B) $\{4\}$ C) $\{2\}$ D) $\{-2\}$

Use a variable for the unknown number. Set up an equation to find the missing number or numbers described in the following problems. Solve the equation.

- 28) When four times the number is added to 9 times the number, the result is 65. What is the number? 28) _____
- A) 5 B) -7.2 C) 0.6 D) 7.2
- 29) When 4 times a number is subtracted from 7 times the number, the result is 33. What is the number? 29) _____
- A) 3 B) -11 C) 11 D) 1
- 30) When a number is decreased by 60% of itself, the result is 128. What is the number? 30) _____
- A) 192 B) 533 C) 320 D) 19
- 31) When 90% of a number is added to the number, the result is 76. What is the number? 31) _____
- A) 47 B) 40 C) 190 D) 36
- 32) 10% of what number is 57? 32) _____
- A) 5,700 B) 57 C) 570 D) 5.7

- 33) One number exceeds another by 13. The sum of the numbers is -1. What are the numbers?
A) 6 and -7 B) -6 and -6 C) 5 and -6 D) No solution

33) _____

Find the slope of the line that goes through the given points.

- 34) (-7, 2), (3, 4)

A) $-\frac{3}{2}$

B) 5

C) $-\frac{1}{5}$

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

34) _____

- 35) (-5, -7), (-5, 1)

A) 0

B) Undefined

C) $\frac{3}{5}$

D) $\frac{4}{5}$

35) _____

- 36) (-3, 4), (2, 4)

A) Undefined

B) 0

C) $\frac{8}{5}$

D) - 8

36) _____

Solve the problem.

- 37) A deep sea diving bell is being lowered at a constant rate. After 10 minutes, the bell is at a depth of 300 ft. After 50 minutes the bell is at a depth of 2,000 ft. What is the average rate of lowering per minute? Round to the nearest hundredth is needed.

A) 34.0 ft per minute

B) 40.0 ft per minute

C) 42.5 ft per minute

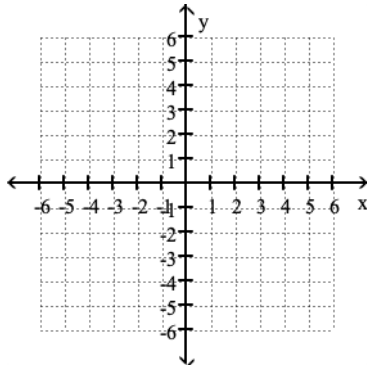
D) 0.02 ft per minute

37) _____

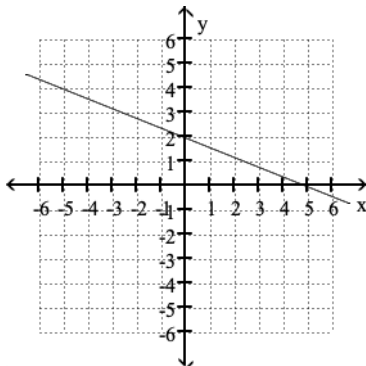
Graph the line whose equation is given. Identify the y-intercept and the slope. Plot and label a second point.

38) $y = -\frac{2}{5}x + 1$

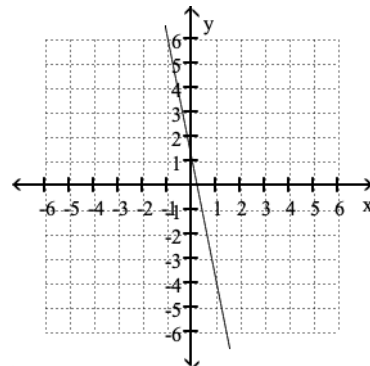
38) _____



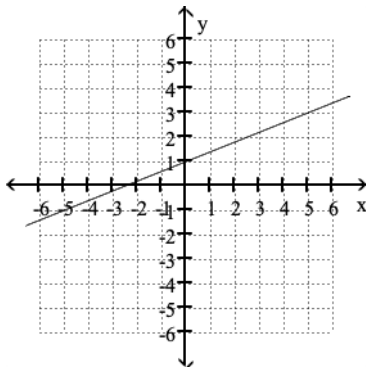
A)



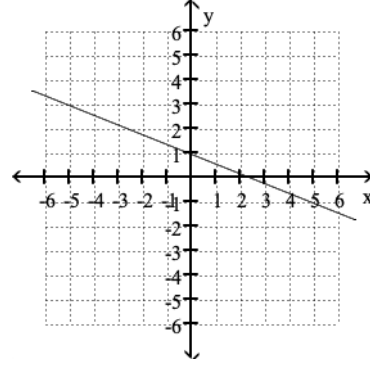
B)



C)

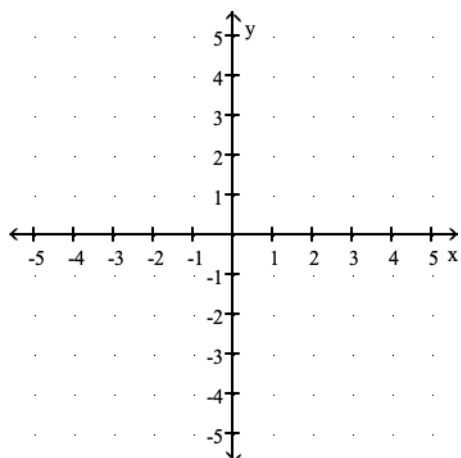


D)

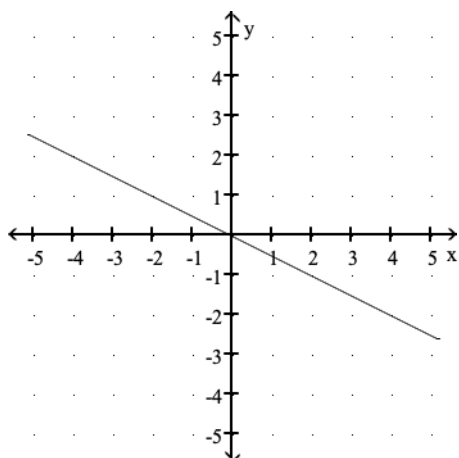


39) $x = -2$

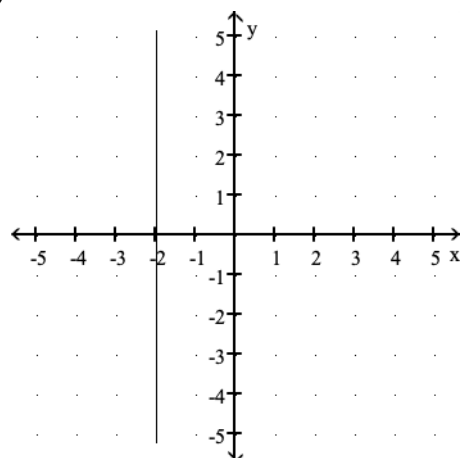
39) _____



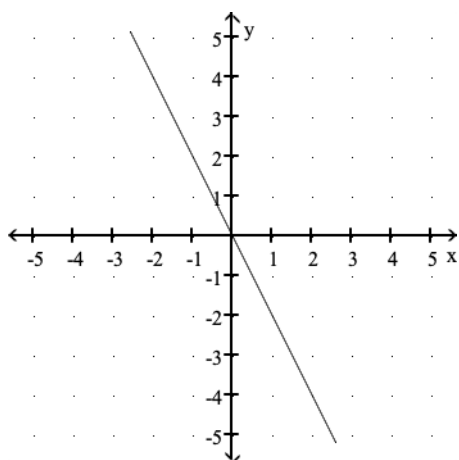
A)



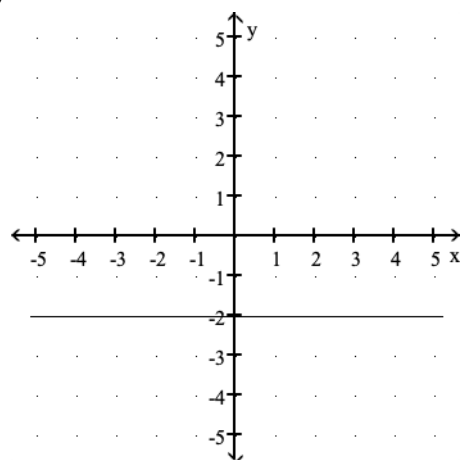
B)



C)

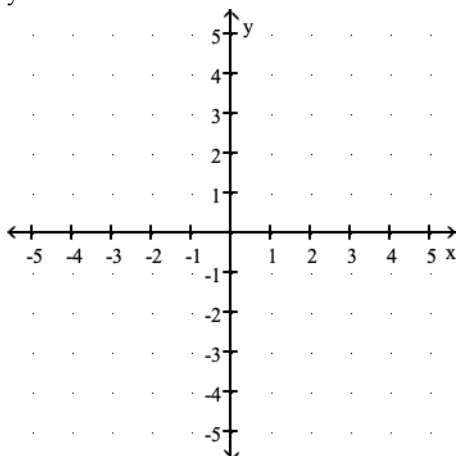


D)

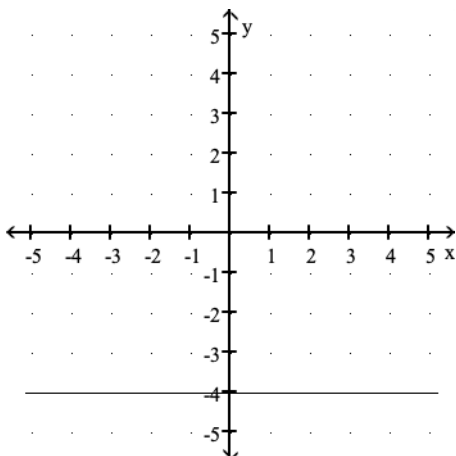


40) $y = -4$

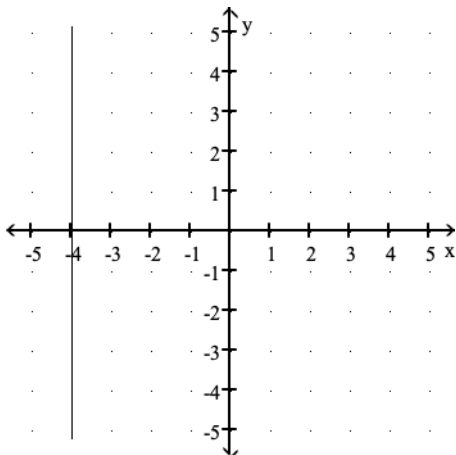
40) _____



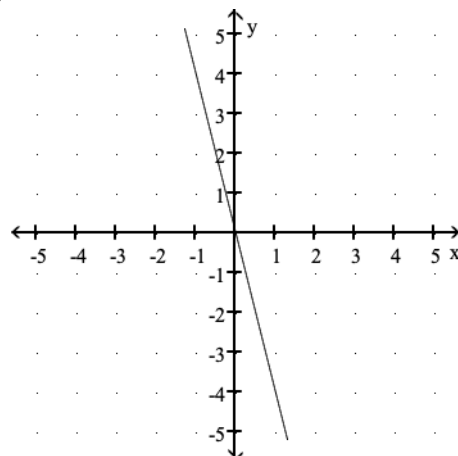
A)



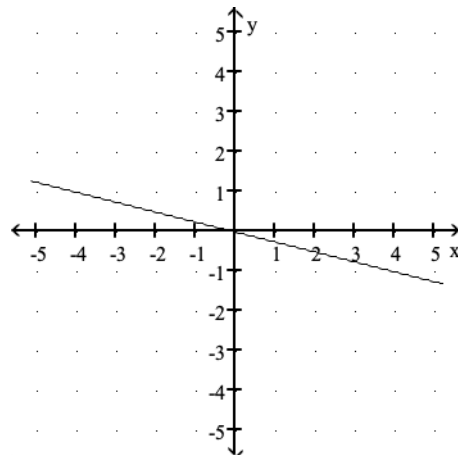
C)



B)



D)



Solve the problem.

41) The equation $V = -2,000t + 23,000$ describes the value in dollars of a certain model of car after it is t years old. If a car is worth \$13,000, substitute 13,000 into the equation to find the age of the car.

41) _____

A) 6 years

B) 7 years

C) 4 years

D) 5 years

- 42) A car rental agency charges \$150 per week plus \$0.20 per mile to rent a car. The total cost, C , for the renting the car for one week and driving it x miles can be modeled by the formula $C = 0.20x + 150$. How many miles can you travel in one week for \$230? 42) _____
- A) 375 miles B) 196 miles C) 1150 miles D) 400 miles

Simplify the exponential expression.

43) $3^9 \cdot 3^5$ 43) _____

- A) 9^{45} B) 3^{45} C) 3^{14} D) 9^{14}

44) $y \cdot y^2$ 44) _____

- A) y^2 B) $2y^2$ C) y^3 D) $2y^3$

45) $x^2 \cdot x^6$ 45) _____

- A) x^8 B) x^{12} C) $12x$ D) $8x$

46) $(5x^2)(6x^9)$ 46) _____

- A) $30x^{18}$ B) $-30x^{11}$ C) $30x^{11}$ D) $-30x^{18}$

47) $(-3x^3y)(-8x^6y^2)$ 47) _____

- A) $-11x^9y^2$ B) $24x^{18}y^2$ C) $-24x^9y^2$ D) $24x^9y^3$

48) $\frac{10x^3}{2x^{12}}$ 48) _____

- A) $\frac{5}{x^8}$ B) $5x^8$ C) $\frac{5}{x^9}$ D) $5x^9$

49) $(-5x^7y^5)^2$ 49) _____

- A) $25x^9y^7$ B) $-25x^{14}y^{10}$ C) $25x^{14}y^{10}$ D) $-5x^{14}y^{10}$

50) $(x^{-5}y^6)^{-3}$ 50) _____

- A) $\frac{x^{15}}{y^{18}}$ B) $\frac{1}{x^{15}y^{18}}$ C) $\frac{x^{-8}}{y^3}$ D) $\frac{y^3}{x^{-8}}$