

Algebra 1 Chapter 1 Test Review**Short Answer****Write an algebraic expression for the phrase.**

1. the sum of b and 11
2. the product of g and 4
3. 4 times the sum of q and p
4. -2 times the quantity q minus 3

Define a variable and write an expression for the phrase.

5. the quotient of 6 times a number and 16
6. 4 minus a number
7. The total cost to rent a row boat is \$18 times the number of hours the boat is used. Write an equation to model this situation if c = total cost and h = number of hours.
8. What equation models the data in the table if d = number of days and c = cost?

Days	Cost
2	44
3	66
5	110
6	132

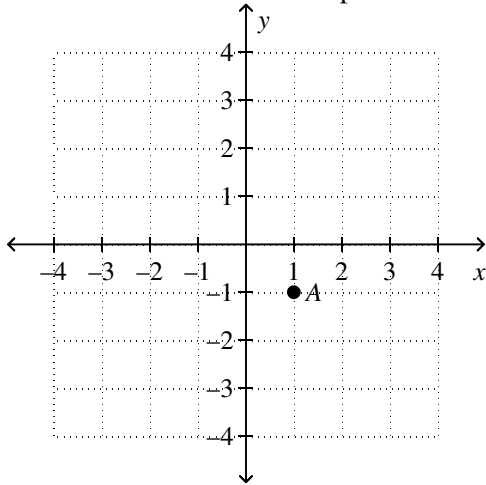
9. Evaluate $u + xy$, for $u = 18$, $x = 10$, and $y = 8$.
10. A pair of shoes costs \$52.99 and the state sales tax is 8%. Use the formula $C = p + rp$ to find the total cost of the shoes, where C is the total cost, p is the price, and r is the sales tax rate.
11. Evaluate the expression $(ab)^2$ for $a = 4$ and $b = 3$.
12. You can use the formula $C = \frac{5}{9}(F - 32)$ to convert temperature in degrees Fahrenheit, F , to temperature in degrees Celsius, C . What is 62°F in degrees Celsius? Round your answer to the nearest tenth.

Simplify the expression.

13. $3[(15 - 3)^2 \div 4]$
14. $4(20 + 12) \div (4 - 3)$
15. $-9 + 6$
16. $-4.8 - (-4.9) + 5.7$

17. $-\frac{1}{8} - \frac{2}{7}$
18. $|18 - 6|$
19. $3.7 - 1.8 - 3.67 + 4.4 - 1.34$
20. $-6.5(-4.9)$
21. $(-2)^5$
22. -5^4
23. $\frac{(-9)(-8)}{(-2)}$
24. $\frac{1}{2}(-12m + 38)$
25. $(-5 - c)(-1)$
26. Evaluate the formula $V = \frac{Bh}{3}$ for $B = 9 \text{ in.}^2$ and $h = 32 \text{ in.}$
27. Write the number 2.4 in the form $\frac{a}{b}$, using integers, to show that it is a rational number.
28. Write $-\frac{1}{6}$, $\frac{5}{3}$, $-\frac{5}{6}$ in order from least to greatest.
29. $|-2.8|$
30. A mountain climber ascends a mountain to its peak. The peak is 12,740 ft above sea level. The climber then descends 200 ft to meet a fellow climber. Find the climber's elevation above sea level after meeting the other climber.
31. Evaluate $-x + 2.7$ for $x = 0.9$.
32. Evaluate $|-x - 2y|$ for $x = -2$ and $y = 3$.
33. Evaluate $b - 2a - c$ for $a = -7$, $b = 3$, and $c = -7$.
34. Evaluate $x(-y + z)$ for $x = 3$, $y = 3$, and $z = 1$.
35. $-12 \div (-2)$
36. Evaluate $\frac{a}{b}$ for $a = -6$ and $b = -2$.
37. Simplify $7(499)$ using the Distributive Property.
38. Use the Distributive Property to find the price of 7 CDs that cost \$14.99 each.
39. $-10z - 28z$

40. What are the coordinates of point A?



41. In which quadrant or on which axis would you find the point $(-2, -4)$?
42. Write the coordinates of the point that is 9 units to the left of the y-axis and 6 units above the x-axis.