

Algebra 1 Review for Quiz over 1.1-1.4**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

Define a variable and write an expression for the phrase.

4. the quotient of 6 times a number and 16
5. 4 minus a number
6. 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.
7. 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

8. Evaluate $u + xy$, for $u = 18$, $x = 10$, and $y = 8$.
9. 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.
10. Evaluate the expression $(ab)^2$ for $a = 4$ and $b = 3$.
11. 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.

12. $3[(15 - 3)^2 \div 4]$
13. $4(20 + 12) \div (4 - 3)$
14. $3^3 \cdot 32 + 12 \div 4$
15. $13[6^2 \div (5^2 - 4^2) + 9]$
16. $-9 + 6$

17. $-4.8 - (-4.9) + 5.7$
18. Evaluate the formula $V = \frac{Bh}{3}$ for $B = 9 \text{ in.}^2$ and $h = 32 \text{ in.}$
19. Write the number 2.4 in the form $\frac{a}{b}$, using integers, to show that it is a rational number.
20. Order the numbers from least to greatest.
 $3\frac{39}{40}, 3\frac{19}{20}, 3\frac{1}{2}$
21. Write $-\frac{1}{6}, \frac{5}{3}, -\frac{5}{6}$ in order from least to greatest.
22. $|-2.8|$
23. 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.
24. Evaluate $-x + 2.7$ for $x = 0.9$.
25. The temperature on a summer afternoon is 85°F. Define a variable and write an expression to find the temperature after it changes. Then evaluate your expression for a decrease of 11 degrees Fahrenheit.