

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

ID: A

### 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.  $-4.8 - (-4.9) + 5.7$