Chapter 1 Test REVIEW

Name:
Hour:

1. Write an algebraic expression for the phrase.
the difference of 6 and 12

Solution b − 12

2. What equation models the data in the table if

d = number of days and c = cost?

Days	Cost
2	24
3	36
5	60
6	72

Solution 12d = C

3. Evaluate $u + xy$, for $u = 8$, $x = 6$ and $y = -7$.

Solution −34

4. Write an algebraic expression for the phrase.

-6 times the quantity g minus 10

Solution −6(g − 10)

5.
A pair of shoes costs $36.99 and the state sales tax is 6%. 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. Remember 6% is the same as .06.

p = _____
r = _____
C = p + rp (Substitute and simplify)
C = _____ + _____ _____
C = $_____

Solution $39.21

6. Evaluate the expression $(ab)^2$ for $a = 5$ and $b = 2$.

Solution 100

Chapter 1 Test REVIEW

Name:
Hour:

7. Simplify $-3.6 - (-2.7) + 5.8$	Solution 4.9
8. Simplify 15-16	Solution -1
9. Simplify $-6.2(-3.1)$	Solution 19.22
10. Simplify $(-3)^3$	Solution -27
11. Simplify -6^2	Solution -36
12. Evaluate the expression $2x + y$ for $x = -10$ and $y = 40$	Solution 20

Chapter 1 Test REVIEW

Name:
Hour:

13. A mountain climber ascends a mountain to its peak. The peak is 11,350 ft above sea level. The climber then descends 600ft to meet a fellow climber. Find the climber's elevation above sea level after meeting the other climber.	Solution 10,750 ft
14. Evaluate $b - 2a - c$ for $a = -5$, $b = 4$, and $c = -3$.	Solution 17
15. The expression $-5.5\left(\frac{a}{1000}\right)$ can be used to calculate the change in temperature in degrees Fahrenheit for an increase in altitude a, measured in feet. A plane starts on the ground and then rises 15,000 ft. Find the change in temperature at the altitude of the plane.	Solution $-82.5°F$
16. Evaluate $\frac{a}{b}$ for $a = -16$ and $b = -2$.	Solution 8
17. Simplify $3(-x + 5)$	Solution $-3x + 15$
18. Simplify $8(16a + 1) - 12$	Solution $128a - 4$