Name Date

Chapter 3 Study Guide

Evaluate the expression when  and 

 1.  2. 

Write the phrase as an expression. Then evaluate the expression
when  and 

 3. the total of a number *a* and a number *b*

 4. the product of 4 and the difference of 10 and a number *b*

Tell which property is illustrated by the statement.

 5.  6. 

 7.  8. 

**Simplify the expression. Explain each step.**

 9.  10. 

Simplify the expression.

 11.  12. 

Factor the expression using the GCF.

 13.  14. 

 15. Complete the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 0 | 2 | 4 | 6 | 8 |
|  |  |  |  |  |  |

 16. A car travels 45 miles on one gallon of gas.

 a. Write an algebraic expression to find the distance the car can travel using *x* gallons of gas.

 b. The car uses 10 gallons of gas. How many miles does it travel?