

## Module 4 Topic D Lesson 11 Student Copy

### Classwork

1. Apply the distributive property to write equivalent expressions.

a.  $7x + 7y$

b.  $15g + 20h$

c.  $18m + 42n$

d.  $30a + 39b$

e.  $11f + 15f$

f.  $18h + 13h$

g.  $55m + 11$

h.  $7 + 56y$

2. Evaluate each of the expressions below.

a.  $6x + 21y$  and  $3(2x + 7y)$        $x = 3$  and  $y = 4$

b.  $5g + 7g$  and  $g(5 + 7)$        $g = 6$

c.  $14x + 2$  and  $2(7x + 1)$        $x = 10$

d. Explain any patterns that you notice in the results to parts (a)–(c).

e. What would happen if other values were given for the variables?

# Homework

## Problem Set

1. Use models to prove that  $3(a + b)$  is equivalent to  $3a + 3b$ .
2. Use greatest common factor and the distributive property to write equivalent expressions in factored form for the following expressions.
  - a.  $4d + 12e$
  - b.  $18x + 30y$
  - c.  $21a + 28y$
  - d.  $24f + 56g$