

Name \_\_\_\_\_ Date \_\_\_\_\_

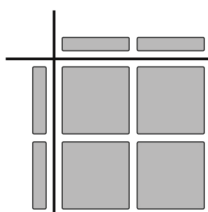
## Master 5.24

## Extra Practice 6

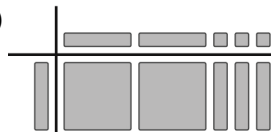
## Lesson 5.6 Multiplying and Dividing a Polynomial by a Monomial

1. Write the multiplication sentence modelled by each set of algebra tiles.

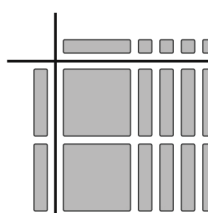
a)



b)



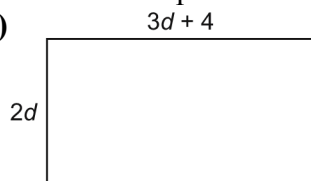
c)



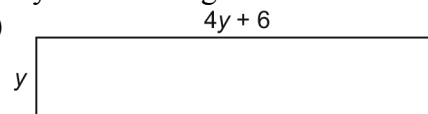
2. For each set of algebra tiles in question 1, write a division sentence.

3. Write the multiplication sentence modelled by each rectangle.

a)



b)



4. For each rectangle in question 4, write a division sentence.

5. Multiply.

a)  $v(3v + 1)$

b)  $3c(5c + 2)$

c)  $(8 + 4y)(6y)$

d)  $5p(-5 - 2p)$

e)  $(7k - 3)(-m)$

f)  $(-1 - 10r)(-r)$

6. Divide.

a)  $(6x + 3) \div 3$

b)  $(14w - 7) \div -7$

c)  $(-15 - 10q) \div 5$

d)  $(8z^2 + 4z) \div 2z$

e)  $(12c^2 - 6c) \div 3c$

f)  $(9xy - 6x) \div -3x$

7. Here is a student's solution for a division question.

$$(-12x^2 - 9x - 12xy) \div (-3x)$$

$$= \frac{-12x^2}{-3x} + \frac{9x}{-3x} + \frac{-12xy}{-3x}$$

$$= 4x^2 - 3 + 4xy$$

- a) Explain why the student's solution is incorrect.

- b) What is the correct answer?