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BLM 7–5

Section 7.3 Extra Practice

= positive 1-tile

= positive x-tile

= positive x^2-tile

= positive y-tile

= negative 1-tile

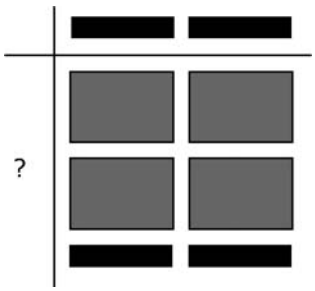
= negative x-tile

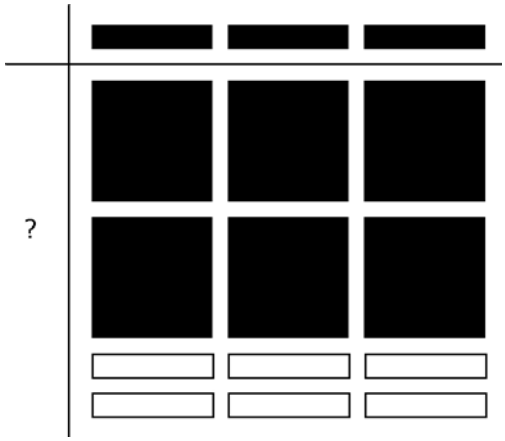
= negative x^2-tile

= positive xy-tile

1. What polynomial division statement is represented by the algebra tiles? Find the quotient.

a)





$$\frac{\square xy + \square x}{2x}$$

_____

$= \_\_\_\_\_ y + \_\_\_\_\_$

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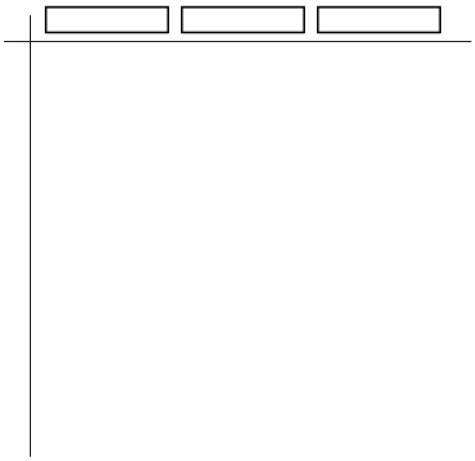
(continued)

2. Use a model to divide each expression. Find the quotient.

a) $\frac{9x^2 - 3x}{-3x}$

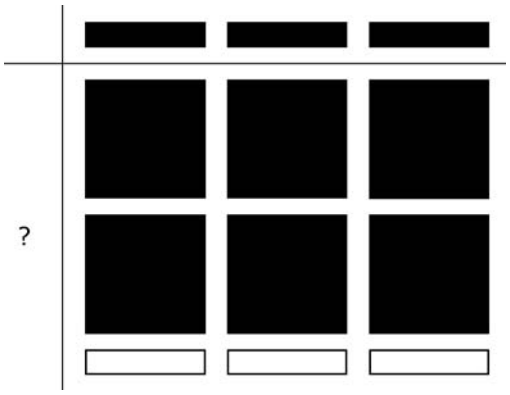


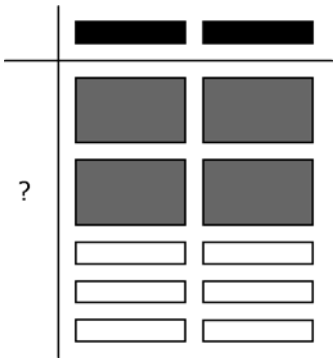
b) $\frac{4x^2 + 6x}{2x}$

$\frac{9x^2 - 3x}{-3x} =$ _____

3. Write the polynomial division statement shown by the algebra tiles. Find the quotient.

a)





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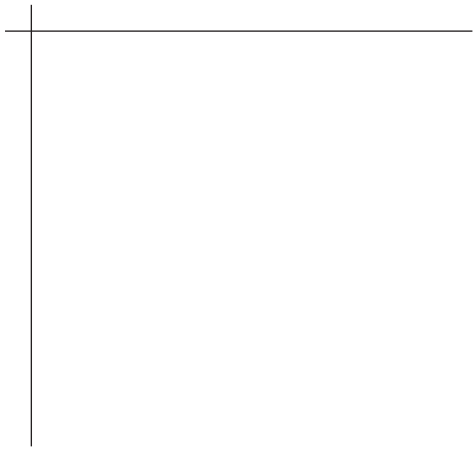
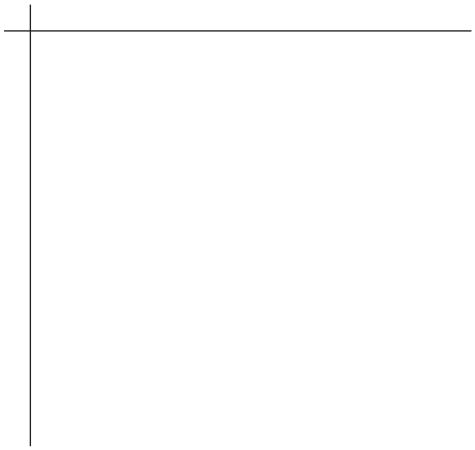
(continued)

4. Use algebra tiles to divide each of the following expressions.

a) $\frac{4x^2 - 6x}{-2x}$

b) $\frac{9x^2 + 6xy}{3x}$





$\frac{4x^2 - 6x}{-2x} =$ _____

5. Divide.

a) $\frac{15x^2 - 20x}{5x}$

$= \frac{15x^2}{5x} - \frac{20x}{5x}$

$=$ _____ x – _____

b) $\frac{16m^2 + 20mn}{4m}$

c) $\frac{18k^2 - 9k}{9k}$

d) $\frac{12m + 18mn}{-6m}$

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e) $\dfrac{1.4d^2 + 1.8d - 1.6}{2}$

$= \dfrac{1.4d^2}{2} + \dfrac{1.8d}{2} - \dfrac{1.6}{2}$

$=$ _____

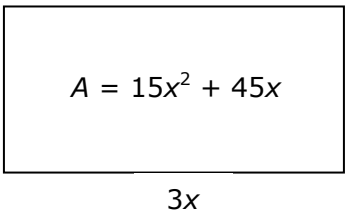
f) $\dfrac{9c^2 - 12c + 6}{-3}$

6. You are decorating the bulletin board in your classroom with pictures of your classmates.
Each picture covers an area of $4x$ cm².
The area of the board is $4x^2 + 16x$ cm².
Write an expression to represent how many pictures are required to cover the board.

Divide.

Sentence: _____

7. A rectangular lawn has a width of $3x$ metres .
The area is $15x^2 + 45x$ m².
You wish to put a fence around the lawn.



a) Write an expression for the length of the rectangle.

$\text{length} = \dfrac{\text{Area}}{\text{width}}$

b) Write an expression to show the perimeter of the lawn.

Perimeter **=** (2 × length) + (2 × width)

c) You are placing a post every 2 m. Write an expression to show how many posts will be required.

ISBN: 978–0–07–000219–7