Section 7.3 Extra Practice

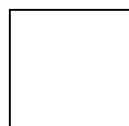■ = positive 1-tile   □ = negative 1-tile

▬ = positive x-tile   ▭ = negative x-tile
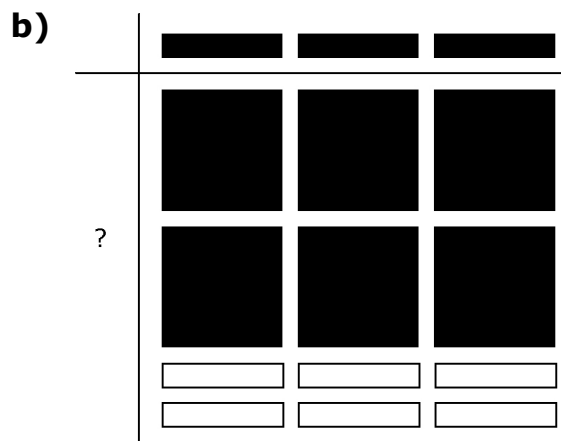
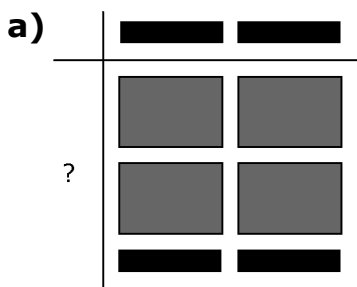■ = positive x^2-tile   □ = negative x^2-tile

▭ = positive y-tile   ■ = positive xy-tile

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

a)
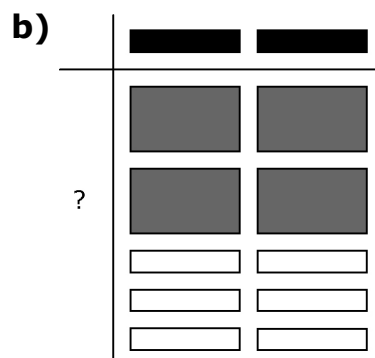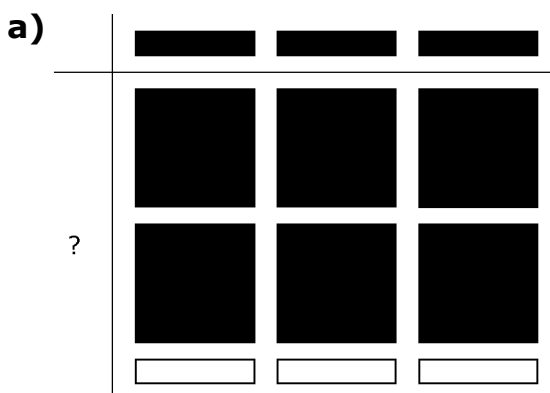

b)

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

a) $\dfrac{9x^2 - 3x}{-3x}$ **b)** $\dfrac{4x^2 + 6x}{2x}$

3. Determine the polynomial division statement shown by the algebra tiles.
Determine the quotient.

a)

b)

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

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

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

5. Divide.

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

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

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

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

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

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.

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

a) What is an expression to represent the perimeter of the lawn?

b) You are placing a post every 2 m. Find an expression to represent how many posts will be required.