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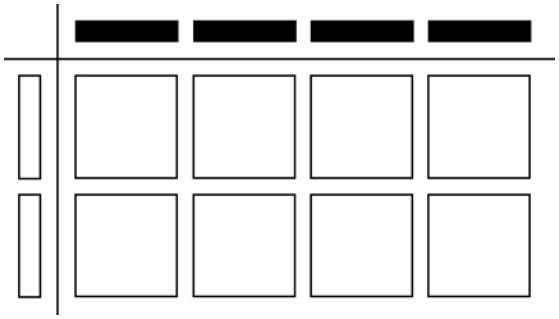
BLM 7–6

Chapter 7 Test

For #1 to #4, circle the best answer.

1. Which monomial multiplication equation is modelled by the algebra tiles?



A $(-2x)(4x) = -8x^2$ **B** $(-2x)(4x) = 8x^2$
C $(-2x)(4y) = -8xy$ **D** $(-2x)(-4y) = 8xy$

2. What is the correct solution to $\frac{16x^2}{4x}$?

A 4 **B** $4x$
C $4x^2$ **D** $64x^2$

3. Leah simplified the expression $\frac{21x^2 + 14x}{7x}$.

Which of the following describes the answer?

A monomial **B** binomial
C trinomial **D** constant

4. Which of the equations best shows the use of the distributive property?

A $3(4x + 2x) = 3(6x)$ **B** $5(2 - 3x) = 5(-3x + 2)$
C $2(-x + 4) = (-x + 4)2$ **D** $4(2x - 7) = (4)(2x) + (4)(-7)$

Complete the statements in #5 to #7.

5. The product of $(-3x)(5.1y)$, in simplified form, is _____.

6. The quotient $\frac{10x^2}{4x}$, in simplified decimal form, is _____.

7. Multiplying the polynomial $\frac{4}{5}x - 6$ by $5x$ produces the expression

_____.

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Short Answer

8. Write each product in simplified form.

a) $(5x)(3x)$

b) $(-2y)(-4x + 5)$

9. Write each quotient in simplified form.

a) $\frac{27x^2}{3x}$

b) $\frac{16x - 4x^2}{-2x}$

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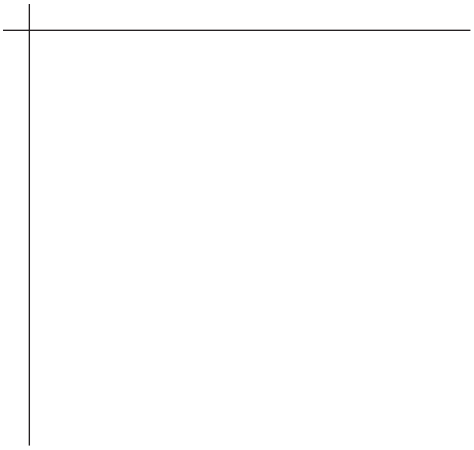
10. Use a model to find the product of $(-2x)(2x - 1)$.



$(-2x)(2x - 1) =$ _____

11. Sergio wanted to determine $5x(7x - 2)$. His solution is shown below.

$(5x)(7x) + (5x)(-2)$	Step 1
$= (5)(7)(x)(x) + (5)(-2)(x)(-2)$	Step 2
$= 35x^2 - 10(-2x)$	Step 3
$= 35x^2 + 20x$	Step 4

Sergio discovered an error in his solution.

a) In which step did Sergio make the error? _____

b) Show the correct solution.

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Written Response

12. Provide each of your answers in simplified form.

a) Write an expression to represent the area of Rectangle A.

Area = length × width

_____

b) The area of Rectangle *B* is three times the area of Rectangle *A.* Write an expression for the area of rectangle *B*.

c) If the width of Rectangle B can be represented by $12x$, what is an expression for the length of Rectangle B?

$$\text{length} = \frac{\text{area of Rectangle B}}{\text{width}}$$

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