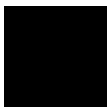Name: _____   Date: _____

Section 7.2 Extra Practice

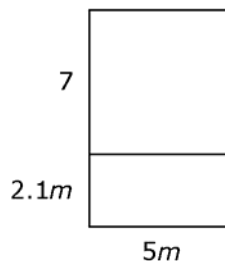◻ = positive 1   ☐ = negative 1

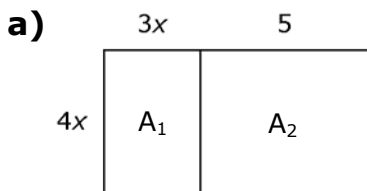▬ = positive x ▭ = negative x

■ = positive x^2 ☐ = negative x^2

1. What polynomial multiplication statement is represented by each area model?

a)

$A_1 = (4x)(\underline{\hspace{1cm}}x)$

$= \underline{\hspace{1cm}}x^2$

$A_2 = 4x(5)$

$= \underline{\hspace{1cm}}x$

$A_1 + A_2$

$= \underline{\hspace{1cm}}x^2 + \underline{\hspace{1cm}}x$

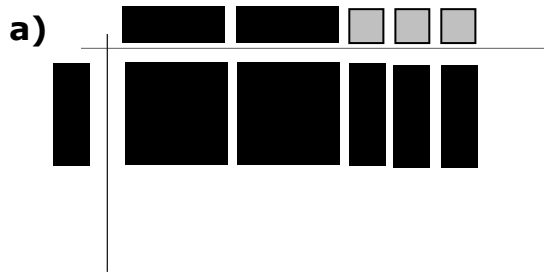**2.** Use an area model to expand each expression.
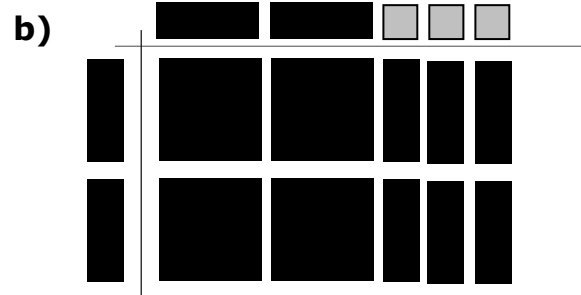
a) $(3x)(2x - 1)$

b) $(4m + 3)(3m)$

3. Find the polynomial multiplication statement shown by the diagrams.

a)

b)

(_____x)(_____x +_____)

= _____x^2 + _____x

_____

Name: _____   Date: _____

4. Use models to expand each expression.

a) $(4x + 1)(2x)$

b) $(-x)(x + 4)$

$(4x + 1)(2x) =$ _____

_____

c) $(2x)(3x - 1)$

d) $(-x)(x - 1)$

_____   _____

Name: _____   Date: _____
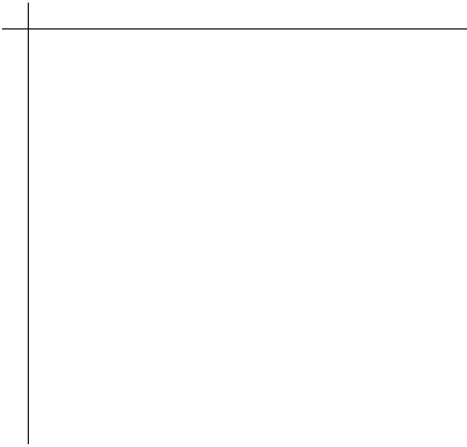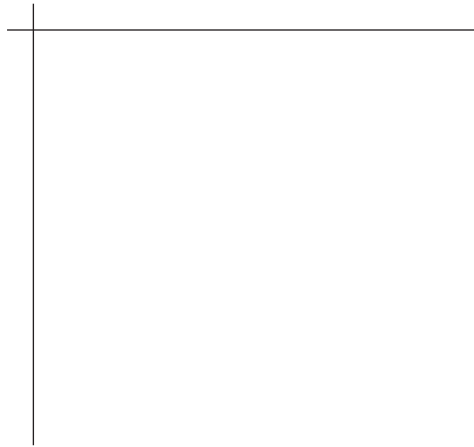
5. Use the distributive property to expand each expression.

a) $(5m)(2m + 3)$

$= (5m)(2m) + (5m)(3)$

$= \underline{\hspace{1cm}} m^2 + \underline{\hspace{1cm}} m$

b) $(-n)(n + 1)$

c) $(1.3x)(2x - 5)$

d) $(3m)(-m + 2)$

e) $(-3k)(4.1k - 5.3)$

f) $(-5b)(1.1b - 2)$

6. Multiply.

a) $(4m + 1)(3m)$

$= (3m)(4m + 1)$ Rewrite.

                      Multiply.

b) $(2x - 3)(-4x)$

c) $(4.2n)(2n - 7)$

d) $\left(\frac{2}{3}m + 4\right)(-9m)$

7. The length of a cement pad on a playground is 3 metres longer than the width. The width is 5x metres.

a) Write an expression for the length of the cement pad._____

b) Write an expression for the area of the cement pad.

Area = length × width

_____

b) If x = 2 m, what is the area of the cement pad?

Substitute x = 2 into your answer from part b).