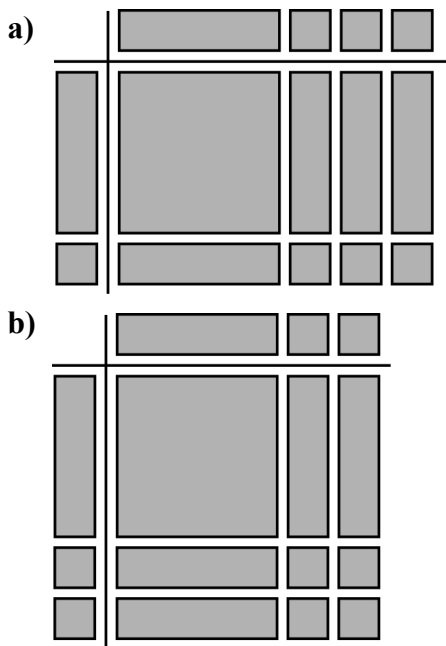


**Section 5.1 Practice Master**

1. What binomial product does each model represent?



2. Model each product using algebra tiles, virtual tiles, or a diagram.

- a)  $3x(x + 3)$   
 b)  $(x + 3)(x + 2)$   
 c)  $(x + 1)(2x + 1)$

3. Use the distributive property to find each binomial product.

- a)  $(x - 2)(x + 3)$   
 b)  $(y + 6)(y + 2)$   
 c)  $(n + 4)(n - 5)$   
 d)  $(d + 6)(d + 7)$   
 e)  $(x - 8)(x - 6)$   
 f)  $(a - 6)(a - 3)$

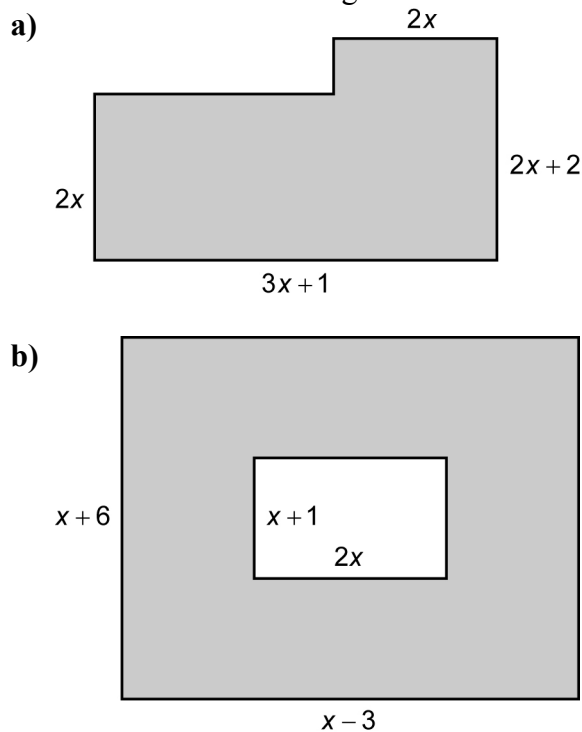
4. Use the distributive property to find each binomial product.

- a)  $(x - 2y)(x + 2y)$   
 b)  $(2x + 1)(x - 3)$   
 c)  $(k - 6)(k + 7)$   
 d)  $(2p - 7q)(2p - 5q)$   
 e)  $(3 - 2s)(2 - 3s)$   
 f)  $(-2t - r)(-3t + r)$

5. Expand and simplify.

- a)  $2(x - 7)(2x + 1)$   
 b)  $(x + 3)(x + 6) - 2(x + 1)$   
 c)  $-(x - 4)(x - 1) + 5(3x - 1)(2x + 1)$   
 d)  $(m - 2)^2 - (3m + 2)^2$   
 e)  $-(m + 7)(m - 1) + 4(2m + 1)(3m - 4)$   
 f)  $-6(2x + 1)(6x + 1) + 3(4x - 3)^2$

6. Write and simplify an expression to represent the area of each shaded region.



7. A rectangular prism has a width of  $x$  centimetres. Its length is 4 cm more than its width and its height is 5 cm more than its width.

- a) Draw a diagram of the prism.  
 b) Write a simplified expression for the volume of the prism.  
 c) Write a simplified expression for the surface area of the prism.