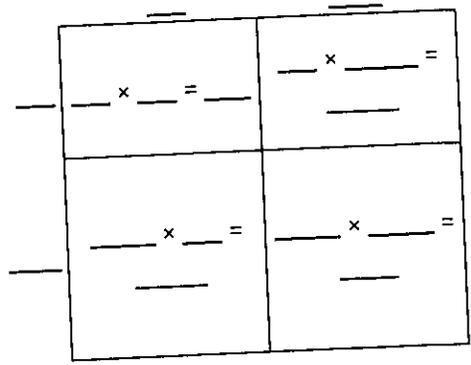


**3.5 8. a)** Use a rectangle diagram to expand, then simplify  $(c - 6)(c - 5)$ .  
 Sketch a rectangle with length \_\_\_\_\_ and width \_\_\_\_\_.  
 Divide the rectangle into smaller rectangles.  
 Add the products from the smaller rectangles.  
 $(c - 6)(c - 5)$   
 $=$  \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ + \_\_\_\_\_  
 $=$  \_\_\_\_\_



**b)** Use the distributive property to expand, then simplify  $(h - 4)(h + 7)$ .  
 $(h - 4)(h + 7) = h(\text{_____}) - 4(\text{_____})$   
 $=$  \_\_\_\_\_

**9. a)** Use algebra tiles to factor  $x^2 + 9x + 8$ .

Use \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.  
 Arrange \_\_\_\_\_ beneath and  
 to the right of \_\_\_\_\_, so there  
 is space to fit \_\_\_\_\_.  
 So,  $x^2 + 9x + 8 =$  \_\_\_\_\_

Sketch the tiles.  
 Label the length and width.

**b)** Factor  $x^2 - 8x + 15$ .  
 The coefficient of  $x$  is \_\_\_\_\_, so the sum of the factors is \_\_\_\_\_.  
 The constant term is \_\_\_\_\_, so the product of the factors is \_\_\_\_\_.

Factors of _____	Sum of the factors
$(-1) \times$ _____	$-1 -$ _____ $=$ _____
$(-3) \times$ _____	$-3 -$ _____ $=$ _____

\_\_\_\_\_ is positive, so both its factors have the same sign.  
 The  $x$ -term is \_\_\_\_\_, so both factors must be \_\_\_\_\_.

The factors of \_\_\_\_\_ for the binomials are \_\_\_\_\_ and \_\_\_\_\_.  
 So,  $x^2 - 8x + 15 =$  \_\_\_\_\_

**3.6 10.** Expand, then simplify  $(2x - 5)(3x + 6)$ .

Use the distributive property.  
 $(2x - 5)(3x + 6) = 2x(\text{_____} + \text{_____}) - 5(\text{_____} + \text{_____})$   
 $= 2x(\text{_____}) + \text{_____}(\text{_____}) - 5(\text{_____}) - \text{_____}(\text{_____})$   
 $=$  \_\_\_\_\_ + \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 $=$  \_\_\_\_\_