

I can rewrite polynomials by factoring. I can factor trinomials with $1x^2$.

Strategy3: Factor $x^2 + bx + c$

Consider $x^2 + 6x + 8$. Draw out this computation with algebra tiles and then factor it.

Consider $x^2 + 3x - 4$. Draw out this computation with algebra tiles and then factor it.

***To factor $x^2 + bx + c$,**

1)

2)

3)

Check:

For example, factor $x^2 - 9x + 20$

There are a few **tricks** to factoring depending on the value of the third term in $x^2 + bx + c$.

Let's see if we can figure out what those tricks are...

$(x + p)(x + q)$	Multiply $x^2 + bx + c$	Signs of b and c
$(x + 2)(x + 3)$		
$(x + 2)(x - 3)$		
$(x - 2)(x + 3)$		
$(x - 2)(x - 3)$		

- The value of c is positive when
- The value of c is negative when

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Independent Practice: Factor

1. $x^2 - 8x - 9$

2. $x^2 - 10x + 24$

3. $y^2 + 3y - 18$

4. $w^2 + w - 12$

5. $x^2 - 17x + 30$

6. $m^2 - 48m - 100$

7. $p^2 + 5p + 6$

8. $y^2 - 13y + 40$

9. $x^2 - 10x - 39$

10. $x^2 - x - 30$