Factoring Trinomials

Factoring Trinomials where $a \neq 1$

A second-degree trinomial (that is, a quadratic) is written in the form $ax^2 + bx + c$.

You already know how to factor expressions where $a = 1$.

Try this one, where $a = 1$, $b = 15$, and $c = 50$:

$$x^2 + 15x + 50$$

How can we factor an expression like this one… where $a = 3$, $b = 8$ and $c = 4$?

$$3x^2 + 8x + 4$$

Example 1

Factor, if possible.

a) $2x^2 + 9x + 9$

b) $3x^2 + 2x + 4$

c) $3x^2 + 7xy + 2y^2$

d) $16x^2 + 26x - 12$

Remember…

Opportunity to Learn

Use this IXL page to master the concepts we have discussed above. Earn a "Smart Score" of 90% or better. IMPORTANT: Write out your answers on paper, then type into IXL.

P.4 Factor quadratics with other leading coefficients