

Factoring using X-box Method

Another way of organizing work to factor. This method is much like "bustin' the b".

Here is a video showing this method: <http://www.showme.com/sh/?h=T0vEVfs>

④ FACTOR $6x^2 + 9x - 27$.

$3(2x^2 + 3x - 9)$

$x + 3$

$2x^2$	$6x$
$-3x$	-9

$3(x+3)(2x-3)$

Diagram description: A crisscross diagram for factoring $6x^2 + 9x - 27$. The top-left number is 6 , the top-right is -3 , the bottom-left is 3 , and the bottom-right is -9 . The top number is labeled $a \cdot c(x)$ and the bottom number is labeled $b(+)$. The numbers $2x$ and 3 are written to the left of the crisscross, with arrows pointing to the $2x^2$ and -9 terms in the X-box diagram.

Video showing how to use this method: <http://www.showme.com/sh/?h=A902ihM>

Factoring Quadratics if $a > 1$
 $2x^2 + x - 10$ X-Box

$2x^2$	$5x$
$-4x$	-10

Diagram description: A crisscross diagram for factoring $2x^2 + x - 10$. The top-left number is 1 , the top-right is 5 , the bottom-left is -4 , and the bottom-right is -10 . The numbers $2x$ and -2 are written to the left of the crisscross, with arrows pointing to the $2x^2$ and -10 terms in the X-box diagram.

$$2x^2 + x - 10 = (2x+5)(x-2)$$

or

$$(x-2)(2x+5)$$