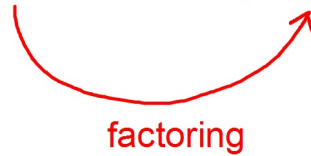
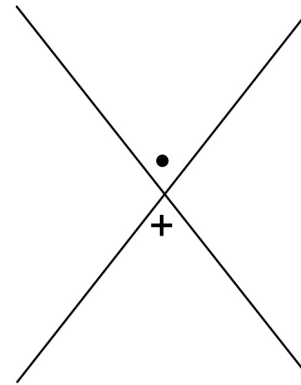


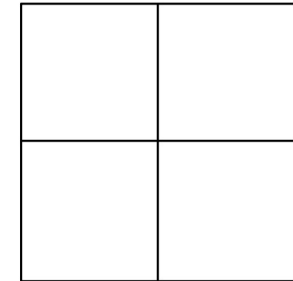
How do you turn $6x^2 + 11x - 10$ into $(\quad)(\quad)$?



You will be using these two tools.



&



Standard Form of a Quadratic:

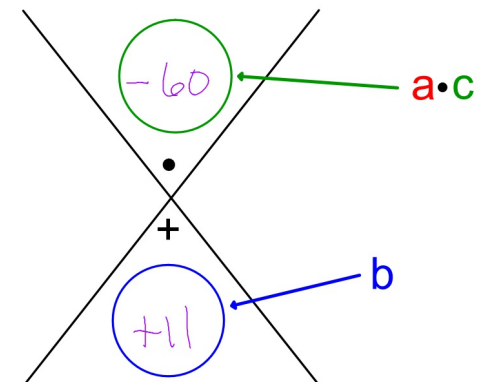
$$ax^2 + bx + c$$

a is the
coefficient
of the
quadratic term

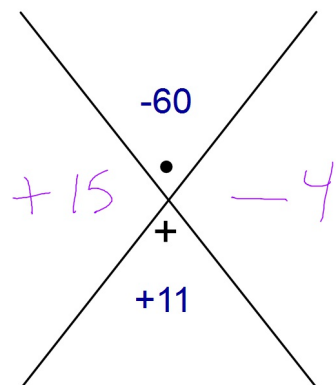
b is the
coefficient of
the linear term

c is the constant

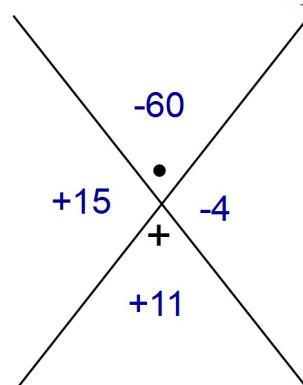
$$6x^2 + 11x - 10$$



$$6x^2 + 11x - 10$$



$$6x^2 + 11x - 10$$



$6x^2$	$+15x$
$-4x$	-10

$$6x^2 + 11x - 10 = (2x + 5)(3x - 2)$$

	$2x$	$+5$
$3x$	$6x^2$	$+15x$
-2	$-4x$	-10

	$2x$	$+5$
$3x$	$6x^2$	$+15x$
-2	$-4x$	-10



$$6x^2 + 11x - 10 = (3x - 2)(2x + 5)$$

Factor

$$20E^2 - 13E + 2 = (5E - 2)(4E - 1)$$

$$\begin{array}{r} 40 \\ -8 \quad -5 \\ -13 \end{array}$$

	5E	-2
4E	20E ²	-8E
-1	5E	2

Factor

$$18a^2 - 23a - 6$$

	2a	-3
9a	18a ²	-27
2	+4	-6

$$\begin{array}{r} 18 \cdot -6 \\ -108 \\ -27 \quad +4 \\ -23 \end{array}$$

$$(9a + 2)(2a - 3)$$

Factor

$$4Q^2 - 13Q + 10 = (Q - 2)(4Q - 5)$$

$$\begin{array}{r} 40 \\ -8 \quad -5 \\ -13 \end{array}$$

	Q	-2
4Q	4Q ²	-8Q
-5	-5Q	+10

Factor

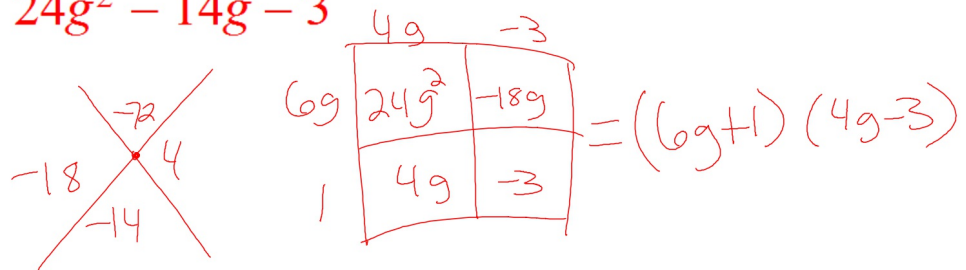
$$20y^2 + 36y + 9$$

	10y	3
2y	20y ²	6y
3	30y	9

$$(10y + 3)(2y + 3)$$

Factor

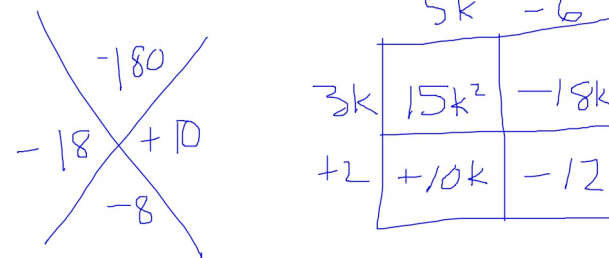
$$24g^2 - 14g - 3$$



$$= (6g+1)(4g-3)$$

Factor

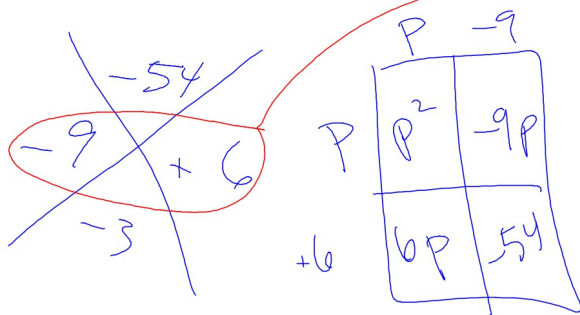
$$15k^2 - 8k - 12 = (5k-6)(3k+2)$$



Factor

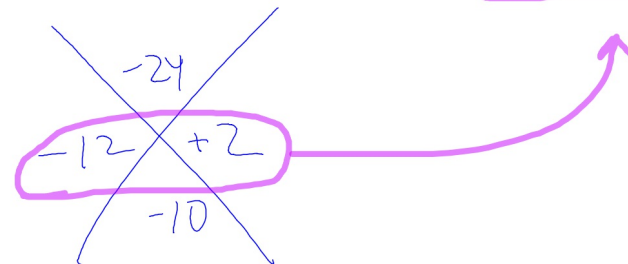
$$1p^2 - 3p - 54 = (p-9)(p+6)$$

Because $a=1$ you can skip the box and use the X to write your two factors



Factor

$$c^2 - 10c - 24 = (c-12)(c+2)$$



$$80x^2 - 240x - 800$$

GCF

$$80(x^2 - 3x - 10) = 80(x-5)(x+2)$$

$$\begin{array}{r} -10 \\ -5 \quad 2 \\ -3 \end{array}$$

	x	-5
x	x^2	$-5x$
$+2$	$+2x$	-10

Factoring out GCF first.

You should always look for a GCF before you do any other kind of factoring!

Factor this trinomial completely.

$$12x^2 - 30x - 108 = 6(2x-9)(x+2)$$

$$6(2x^2 - 5x - 18)$$

$$\begin{array}{r} -36 \\ -9 \quad 4 \\ -5 \end{array}$$

	$2x$	-9
x	$2x^2$	$-9x$
$+2$	$+4x$	-18