

## The Box Method for Factoring a Polynomial

EXAMPLE:  $10x^2 + 11x - 6$   
1<sup>st</sup> create a 2x2 box


2<sup>nd</sup>, in the top left corner put the first term and in the bottom right corner put the last term.

$10x^2$	
	$-6$

3<sup>rd</sup>, multiply these two terms together to get  $-60x^2$ . Find two factors of  $-60x^2$  that when added together they will give you the middle term  $11x$ . These are  $15x$  and  $-4x$ . Put these into the open boxes.

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

4<sup>th</sup>, factor the terms in each row and in each column.

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

5<sup>th</sup>, the sum of the factors for the columns and the sum of the factors for the rows are the polynomial's factors:  $(2x+3)(5x-2)$