

## Factoring Using the Mustang Method

**My**                      **Father**                      **Drives a**                      **Red**                      **Mustang**  
**u**    **a**    **i**    **e**    **o** **l**    **c**    **v**    **d**    **v** **t**    **t**    **i**  
**u**    **e** **i**    **o**    **d**    **c** **p**    **r**    **e**    **e** **l**  
**y**

1. Factor out all common factors, if there are any.
2. Slide a under c and **multiply ac**.
3. **Factor** the new trinomial.
4. **Divide** the constants in the factors by **a**.
5. **Reduce** the fractions.
6. **Move** any remaining denominators in front of the variable.

**Example:**

	$8x^2 - 6x - 5$	
· 8 Step 2	$x^2 - 6x - 40 \rightarrow$	
	$(x - 10)(x + 4)$	Step 3
	$\left(x - \frac{10}{8}\right)\left(x + \frac{4}{1}\right)$	Step 4
(x - ) (x + ) Step 5 4	$\leftarrow z \rightarrow$	
	$(4x - 5)(2x + 1)$	Step 6

**Example:**

	$4x^2 + 22x - 12$	
	$2(2x^2 + 11x - 6)$	Step 1
	$2(2x^2 + 11x - 6)$	
	$\rightarrow \cdot 2$	Step 2
	$2(x^2 + 11x - 12)$	
	$2(x + 12)(x - 1)$	Step 3
	$2\left(x + \frac{12}{2}\right)\left(x - \frac{1}{2}\right)$	Step 4
	$2(x + 6)\left(\frac{x - 1}{2}\right)$	Step 5
	$2(x + 6)(2x - 1)$	Step 6



**M-F8**