### Factoring Pt. 1

April 27, 2020

$$(x+2)(x+3) = x^2 + 3x + 2x + 6$$

$$(x+2)(x+3) = x^2 + 3x + 2x + 6$$
  
First

$$(x + 2)(x + 3) = x^2 + 3x + 2x + 6$$
  
First  
Outside

$$(x+2)(x+3) = x^2 + 3x + 2x + 6$$
First
Outside
Inside

$$(x+2)(x+3) = x^2 + 3x + 2x + 6$$
First
Outside
Inside

Last

X

Χ

- $x^2 + 5x + 6$
- *x* 2
- *x* 3

$$x^2 + 5x + 6$$

x 2

X 3

3x + 2x = 5x

$$x^2 + 5x + 6$$

_	-		
	X		2
Γ			$\overline{}$

$$\begin{bmatrix} x & 3 \\ 3x + 2x = 5x \end{bmatrix}$$

Factor the following polynomial  $x^2 + 5x + 6 = (x + 2)(x + 3)$ 

12*x* 

$$12x 3$$

$$1x 2$$

$$12x \cdot 2 + 3 \cdot x = 27x$$

3*x* 

$$12x 3$$

$$1x 2$$

$$12x \cdot 2 + 3 \cdot x = 27x$$

$$12x 3$$

$$1x 2$$

$$12x \cdot 2 + 3 \cdot x = 27x$$

$$3x$$
 2  
 $4x$  3  
 $3x \cdot 3 + 2 \cdot 4x = 17x$ 

$$12x^2 + 17x + 6$$

3 <i>x</i>	2
4×	3

$$(3x + 2)(4x + 3)$$