

10.30.15
Vertex Form

Warm-up
Complete the trinomial

- 1) $x^2 + 6x + \underline{\hspace{2cm}}$
- 2) $x^2 - 12x + \underline{\hspace{2cm}}$
- 3) $x^2 + 10x + \underline{\hspace{2cm}}$

Standard Form: $y = ax^2 + bx + c$
Vertex Form: $y = a(x - h)^2 + k$

Write $y = x^2 - 10x + 1$ in vertex form.

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

I Try:

$$\text{Write } y = 5x^2 - 20x + 31$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

We Try:

$$\text{Write } y = x^2 + 18x - 10$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

We Try:

$$\text{Write } y = 2x^2 + 24x - 5$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

You Try with your partner on whiteboards

$$\text{Write } y = x^2 + 8x - 10$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

You Try SOLO on your own whiteboards:

$$\text{Write } y = x^2 + 10x - 1$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	

You Try SOLO on your own whiteboards:

$$\text{Write } y = 3x^2 + 18x - 1$$

Separate the terms with the variable	
Factor out the leading coefficient	
Complete the square	
Simplify	