

# COMPLETE THE SQUARE

## Standard Form

$$y = ax^2 + bx + c$$

# FACTORING

- multiply  $(x-h)(x-k)$
- distribute a
- combine with k

- multiply with box method
- combine like terms

## Vertex Form

$$y = a \cdot (x-h)^2 + k$$

Reflection (-) Stretch/comp.	Translation left/right (opposite)	Translate up/down
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- Tells us all transformations
- Vertex is at  $(h,k)$   $\neq h$  is opposite
- Does NOT tell us x or y intercepts

## Factored Form

$$y = (x-m)(x-n)$$

Use the opposite signs	These are your x-intercepts
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- Tells us all x-intercepts  $(m,0)$   $(n,0)$   
 $\neq m$  and  $n$  have opposite signs
- $m \cdot n$  is the y-intercept  $(0, m \cdot n)$
- Does NOT tell us transformations