1.2 Graph Quadratic Functions in Vertex or Intercept Form

Friday, September 8, 2017   7:00 AM

Graph Vertex Form $y=a(x-h)^2+k$

Step 1: Identify the vertex (h,k)

Step 2: Get 2 points above and two points below vertex from table

Step 3: Graph all 5 points

Graph Intercept Form $y=a(x-p)(x-q)$

x-intercepts are p and q: (p,0) (q,0)

Step 1: Identify x-intercepts

Step 2: Find the x value of the vertex using $x=\frac{p+q}{2}$

Step 3: Plug back into equation to solve for y or use graphing calculator

Step 3: Get 2 points above and two points below vertex from table

Step 4: Graph all 5 points

Changing Intercept Form $y=a(x-p)(x-q)$ to Standard Form $y=ax^2+bx+c$

Step 1: Foil-First, Outer, Inner, Last

Step 2: Distribute the a

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

Step 1: Expand $(x-h)^2$ into $(x-h)(x-h)$

Step 2: Foil-First, Outer, Inner, Last

Step 3: Distribute the a

Step 4: Combine like terms