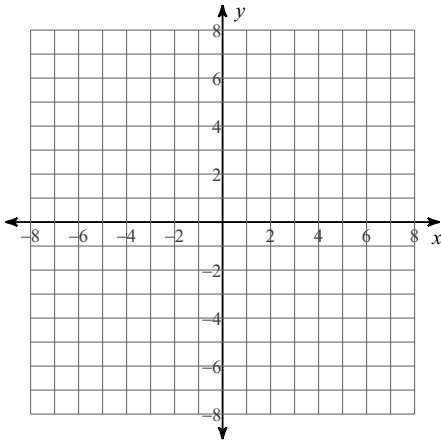


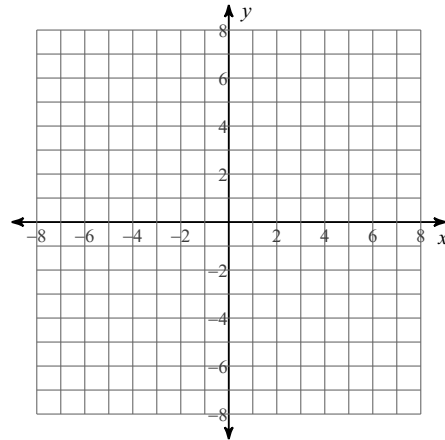
## Quadratics General Form to Vertex Form (QGFVF)

**Solve for y by putting all other terms on the right hand side. Put into vertex form by completing the square. Find the vertex, axis of symmetry, direction of opening, and minimum/maximum value. Then sketch the graph.**

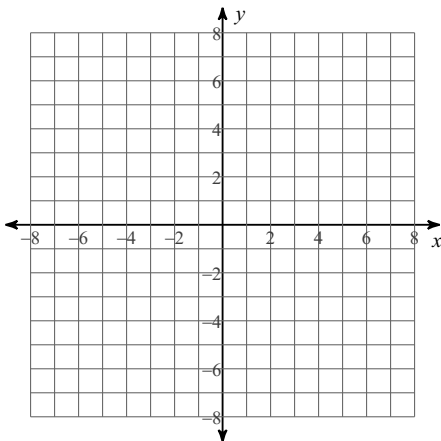
1)  $y = x^2 - 8x + 16$



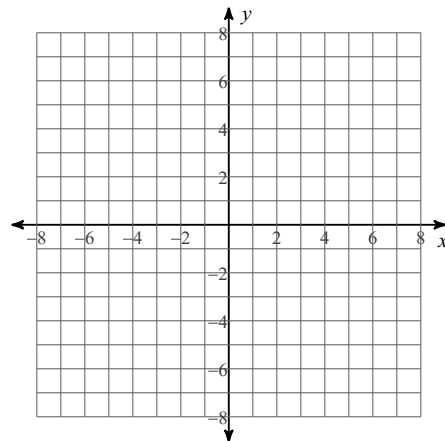
2)  $y = -x^2 - 4x$



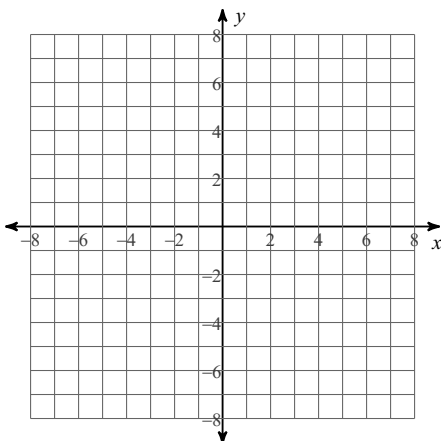
3)  $y = x^2 + 6x + 13$



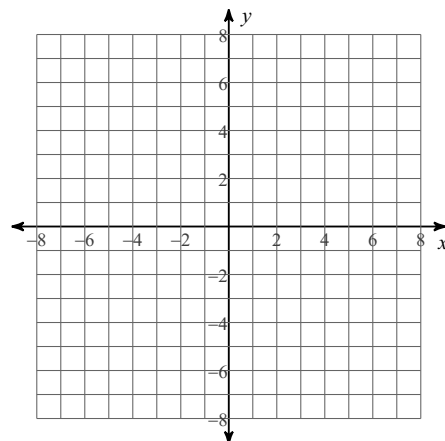
4)  $y = x^2 - 4x - 1$



5)  $y = -x^2 + 8x - 20$

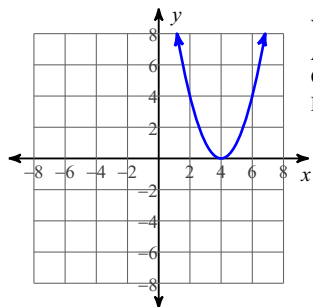


6)  $y = -x^2 - 10x - 27$



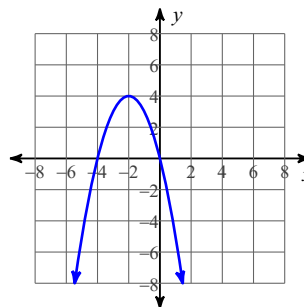
# Answers to Quadratics General Form to Vertex Form (QGFVF)

1)



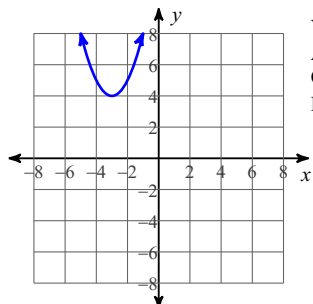
Vertex:  $(4, 0)$   
Axis of Sym.:  $x = 4$   
Opens: Up  
Min value = 0

2)



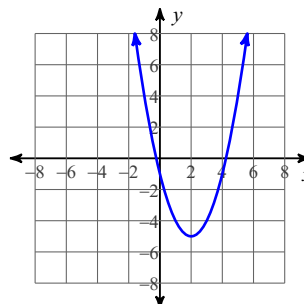
Vertex:  $(-2, 4)$   
Axis of Sym.:  $x = -2$   
Opens: Down  
Max value = 4

3)



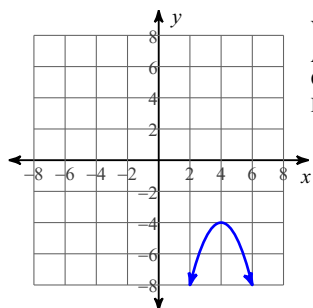
Vertex:  $(-3, 4)$   
Axis of Sym.:  $x = -3$   
Opens: Up  
Min value = 4

4)



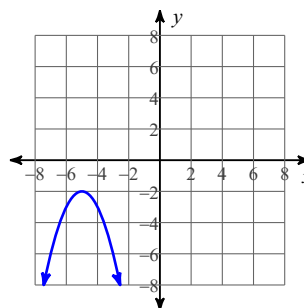
Vertex:  $(2, -5)$   
Axis of Sym.:  $x = 2$   
Opens: Up  
Min value = -5

5)



Vertex:  $(4, -4)$   
Axis of Sym.:  $x = 4$   
Opens: Down  
Max value = -4

6)



Vertex:  $(-5, -2)$   
Axis of Sym.:  $x = -5$   
Opens: Down  
Max value = -2