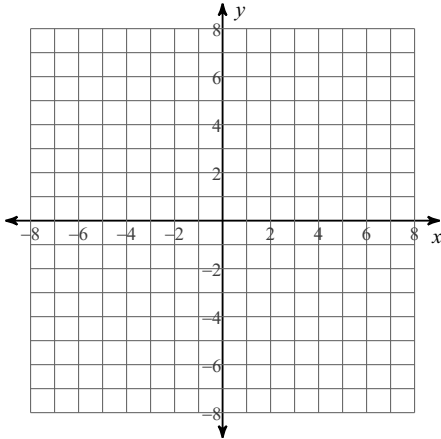


Graphs of Parabolas - Vertex Form

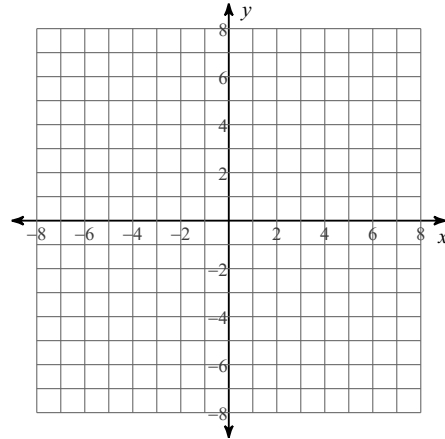
Date _____ Period _____

Identify the vertex, axis of symmetry, direction of opening, min/max value, y-intercept, and x-intercepts of each. Then sketch the graph.

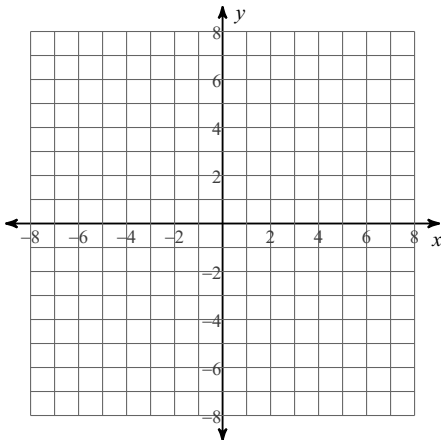
1) $y = (x - 5)^2 - 4$



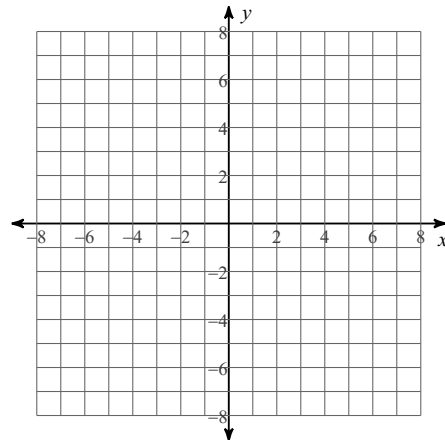
2) $y = -(x + 3)^2 - 1$



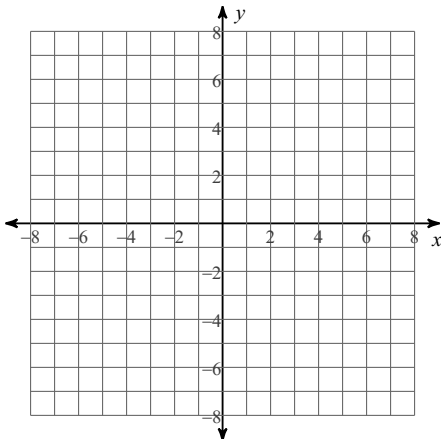
3) $y = -(x - 1)^2 + 1$



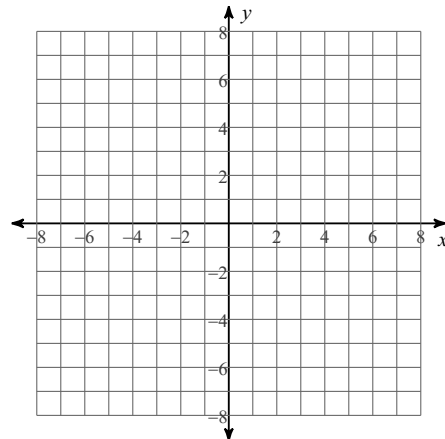
4) $y = (x + 1)^2 + 3$



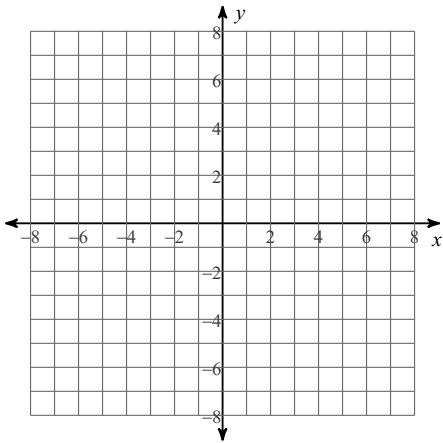
5) $y = -(x + 2)^2 + 1$



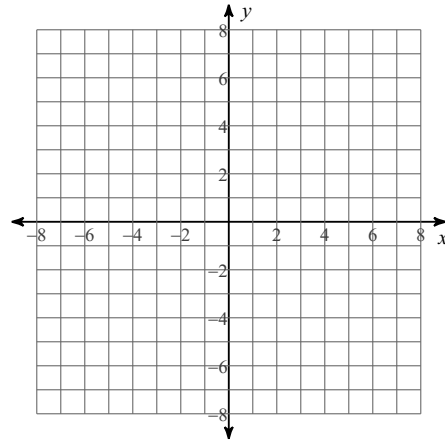
6) $y = -(x + 5)^2$



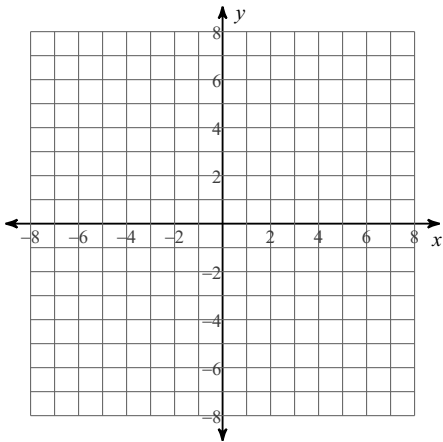
$$7) y = 2(x - 4)^2 - 8$$



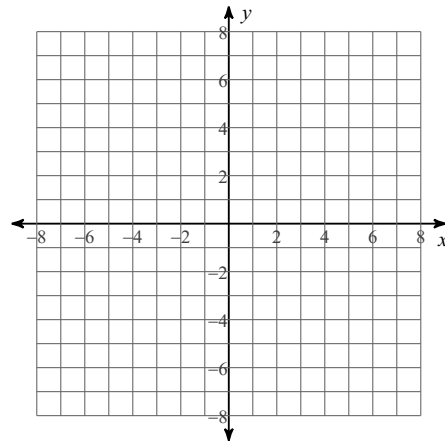
$$8) y = \frac{1}{2}(x - 2)^2 - 8$$



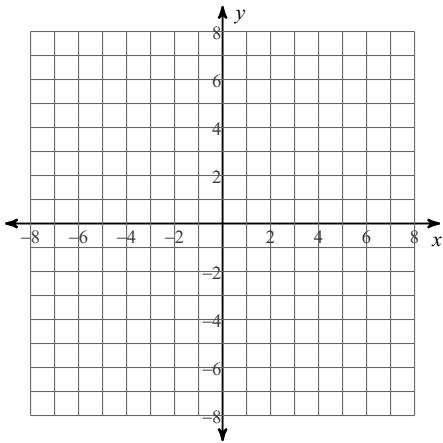
$$9) y = (x - 6)^2 + 3$$



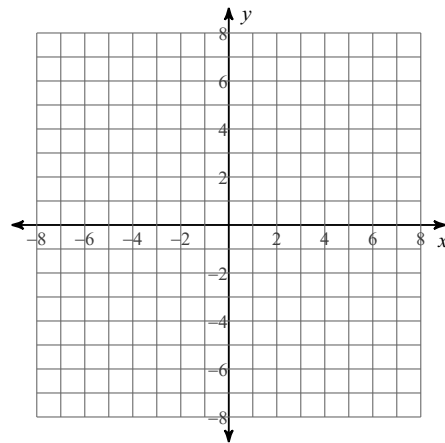
$$10) y = (x - 6)^2 - 1$$



$$11) y = -2(x - 6)^2 - 1$$

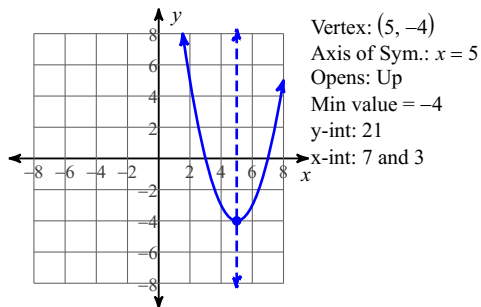


$$12) y = \frac{1}{4}(x - 4)^2 + 5$$

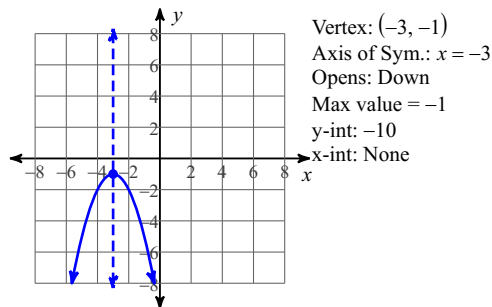


Answers to Graphs of Parabolas - Vertex Form (ID: 1)

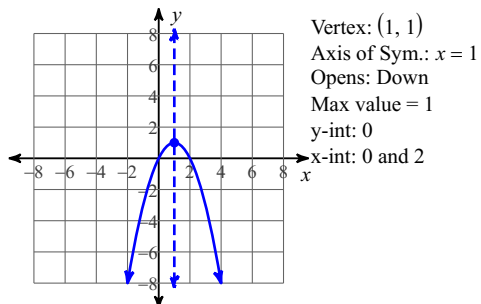
1)



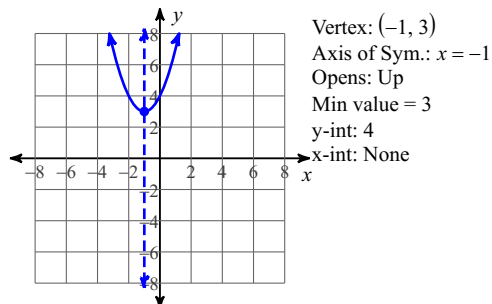
2)



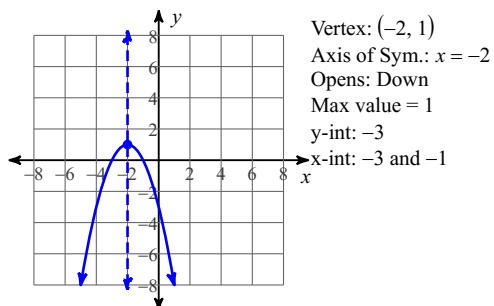
3)



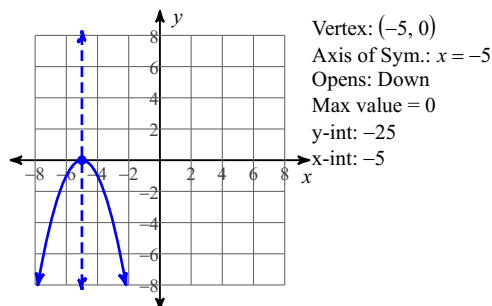
4)



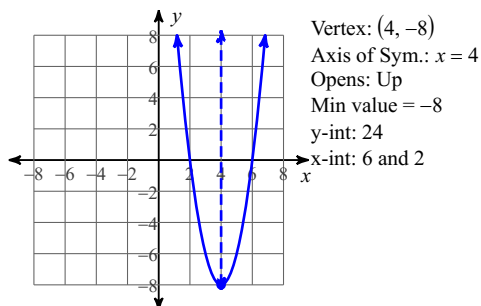
5)



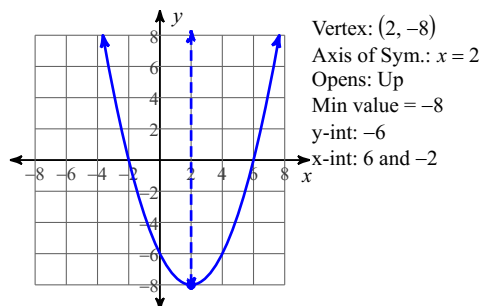
6)



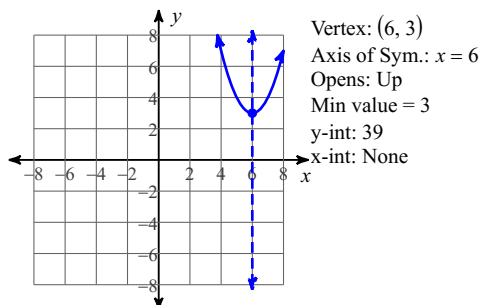
7)



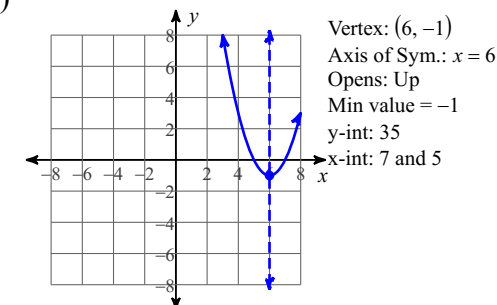
8)



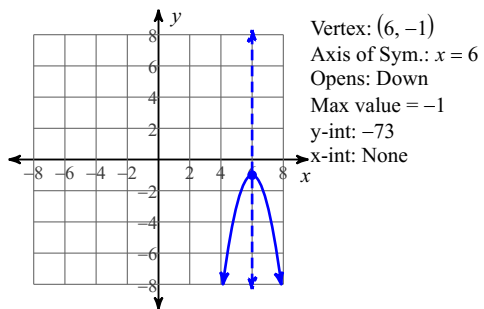
9)



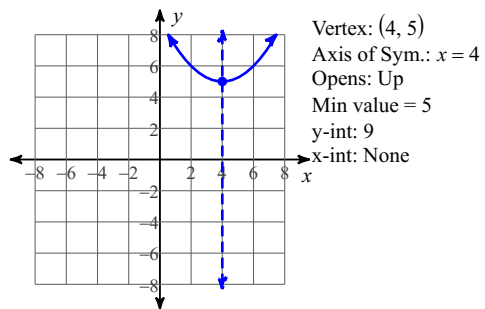
10)



11)



12)

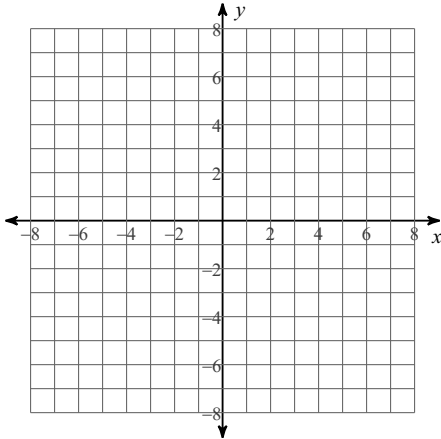


Graphs of Parabolas - Vertex Form

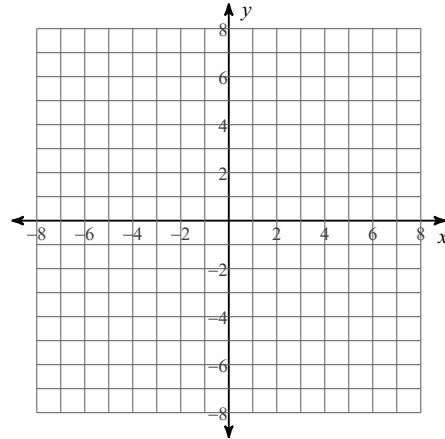
Date _____ Period _____

Identify the vertex, axis of symmetry, direction of opening, min/max value, y-intercept, and x-intercepts of each. Then sketch the graph.

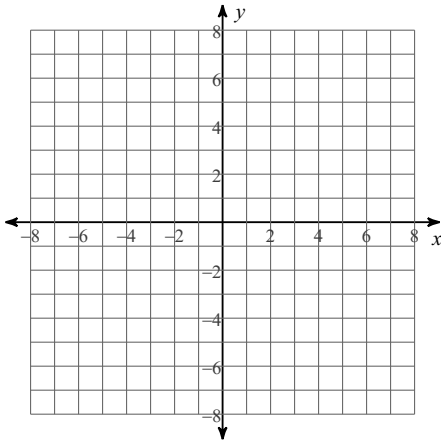
1) $y = -(x - 4)^2 - 1$



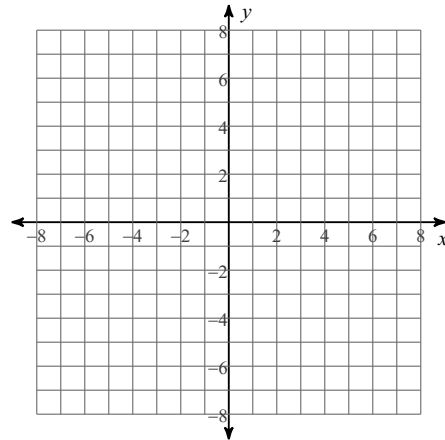
2) $y = -(x + 3)^2 - 1$



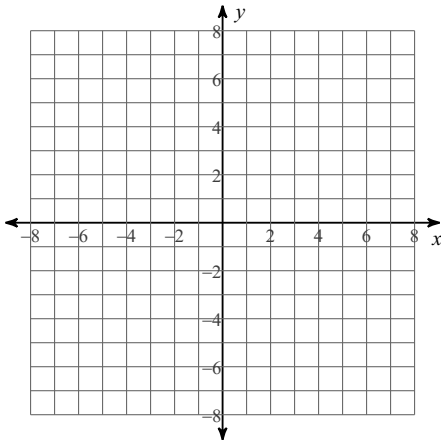
3) $y = -(x + 3)^2 + 4$



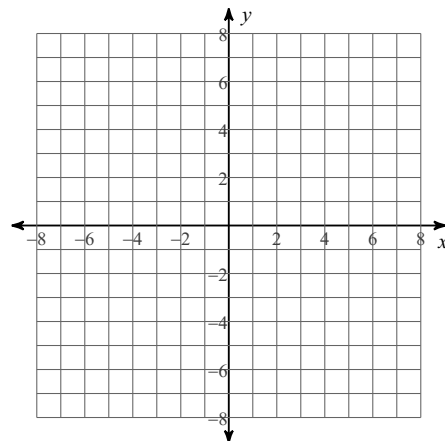
4) $y = -(x + 3)^2$



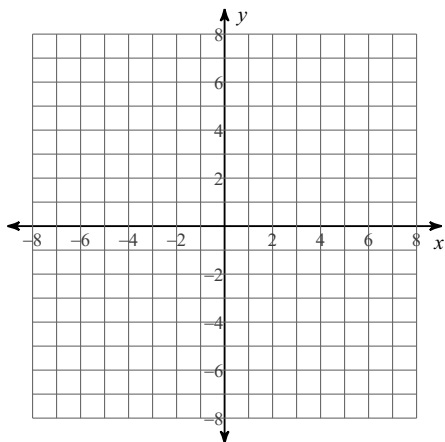
5) $y = -(x - 6)^2 - 1$



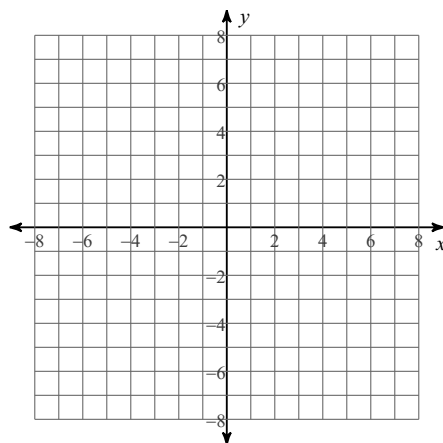
6) $y = -\frac{1}{3}\left(x - \frac{1}{2}\right)^2 + \frac{49}{12}$



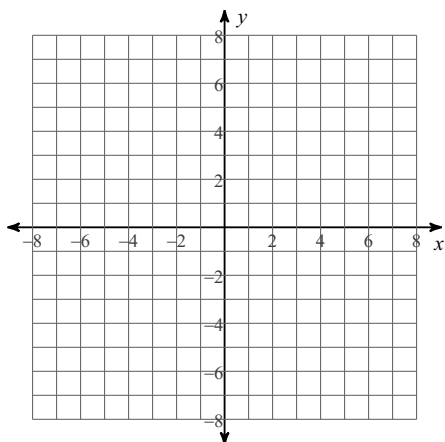
$$7) y = \left(x - \frac{9}{2}\right)^2 - \frac{25}{4}$$



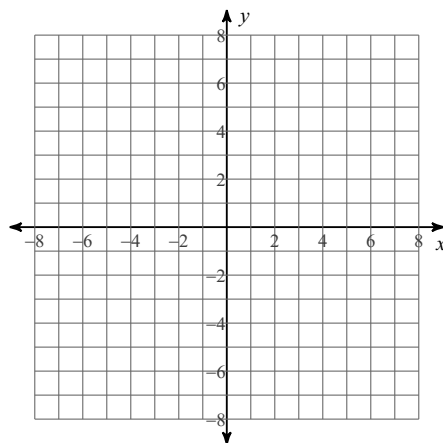
$$8) y = -(x + 6)^2 + 1$$



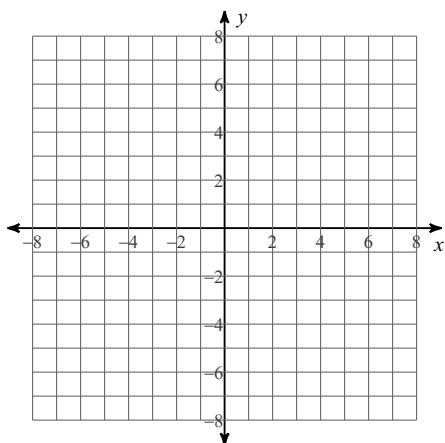
$$9) y = (x + 1)^2 - 4$$



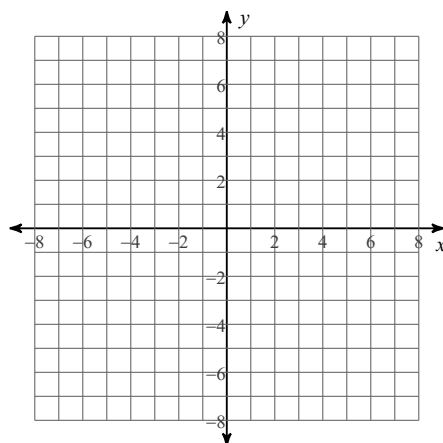
$$10) y = \frac{1}{4}\left(x + \frac{3}{2}\right)^2 - \frac{49}{16}$$



$$11) y = -\left(x + \frac{1}{2}\right)^2 + \frac{9}{4}$$

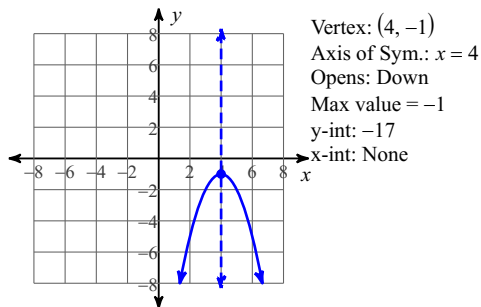


$$12) y = (x - 5)^2 + 1$$

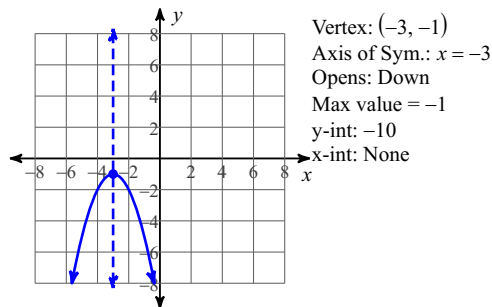


Answers to Graphs of Parabolas - Vertex Form (ID: 2)

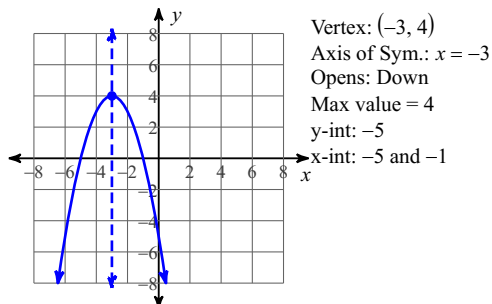
1)



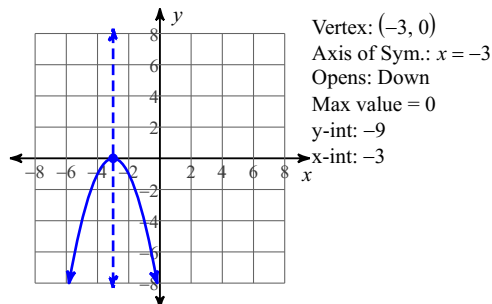
2)



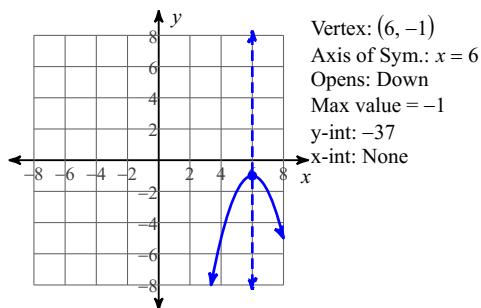
3)



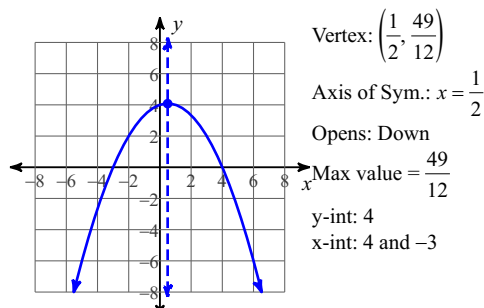
4)



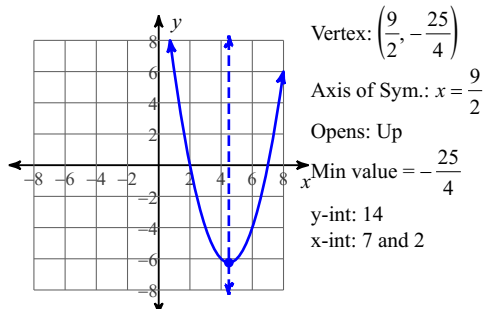
5)



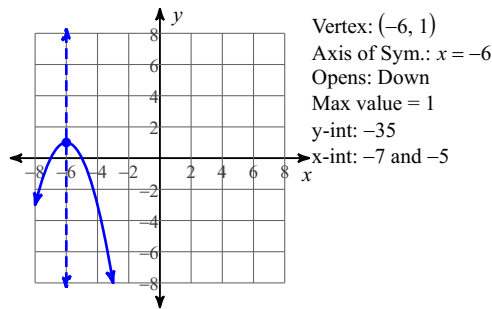
6)



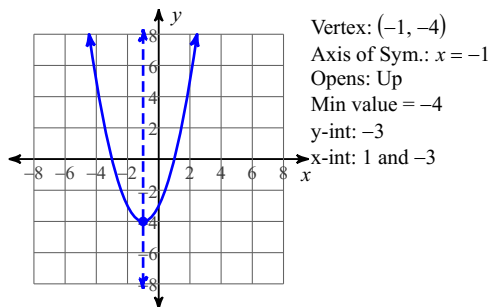
7)



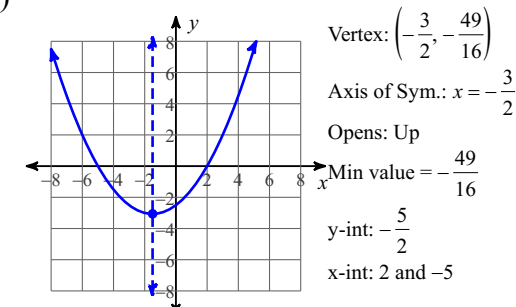
8)



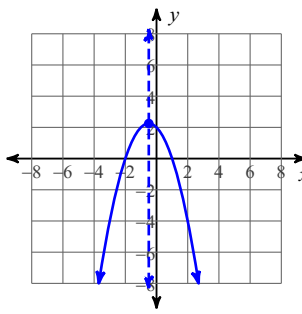
9)



10)

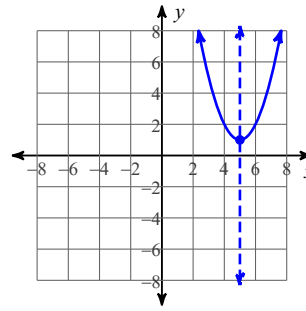


11)



Vertex: $(-\frac{1}{2}, \frac{9}{4})$
Axis of Sym.: $x = -\frac{1}{2}$
Opens: Down
Max value = $\frac{9}{4}$
y-int: 2
x-int: 1 and -2

12)



Vertex: (5, 1)
Axis of Sym.: $x = 5$
Opens: Up
Min value = 1
y-int: 26
x-int: None