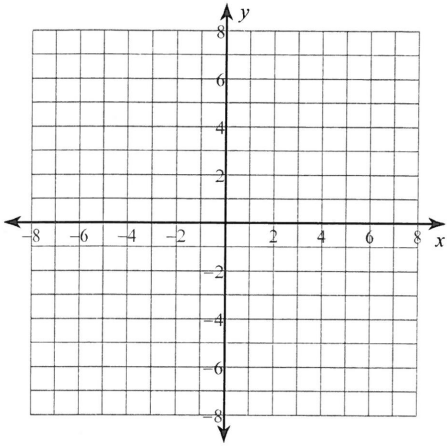


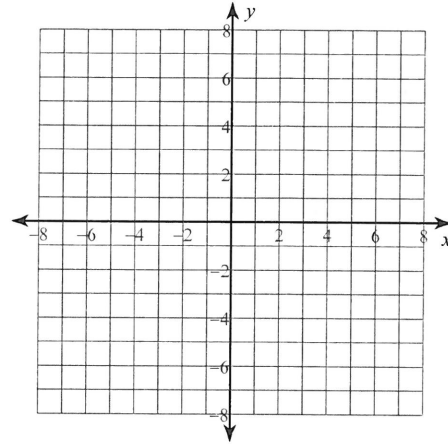
Graphing Quadratic Functions

Identify the vertex and min/max value of each. Then sketch the graph.

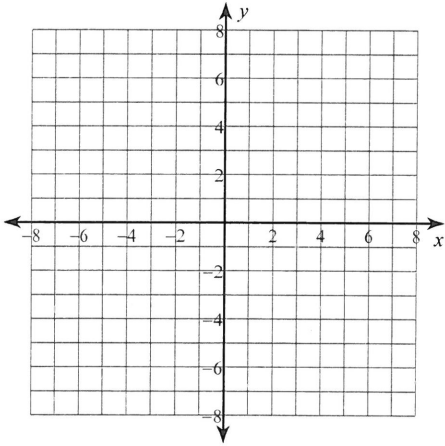
1) $f(x) = -x^2 - 12x - 38$



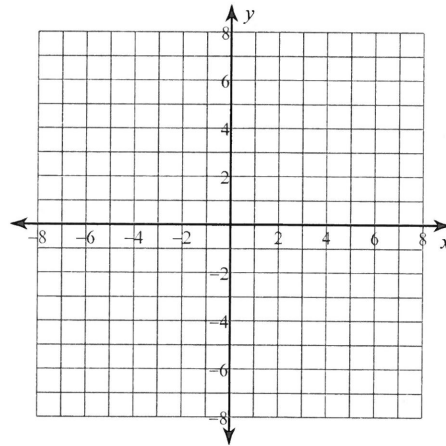
2) $f(x) = -x^2 + 2x + 2$



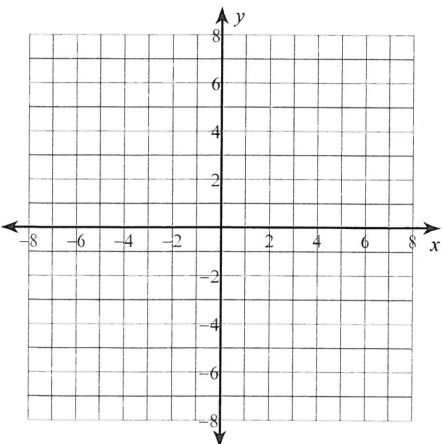
3) $f(x) = -3x^2 - 30x - 80$



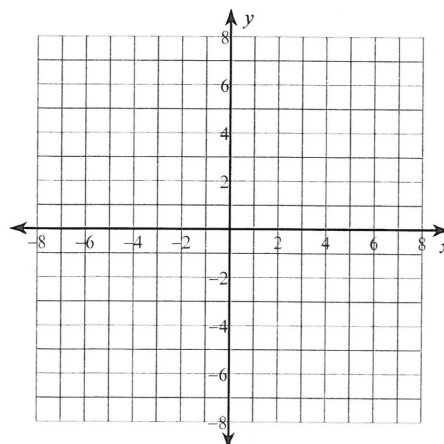
4) $f(x) = -x^2 + 10x - 23$



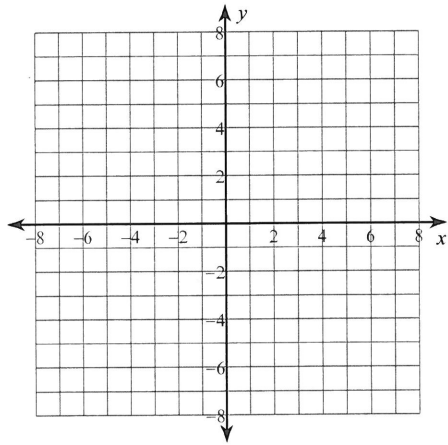
5) $f(x) = 2(x + 6)^2 - 3$



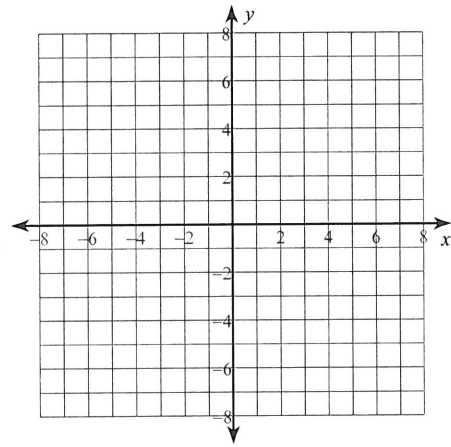
6) $f(x) = -(x - 3)^2 - 2$



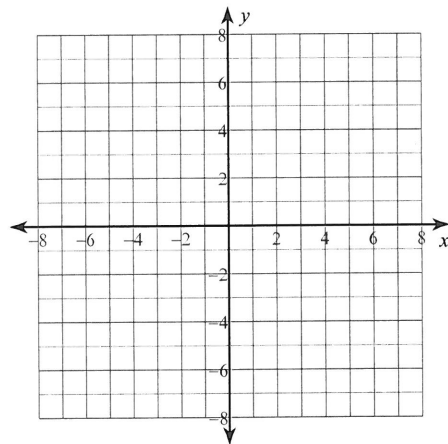
$$7) f(x) = -(x + 6)^2 - 5$$



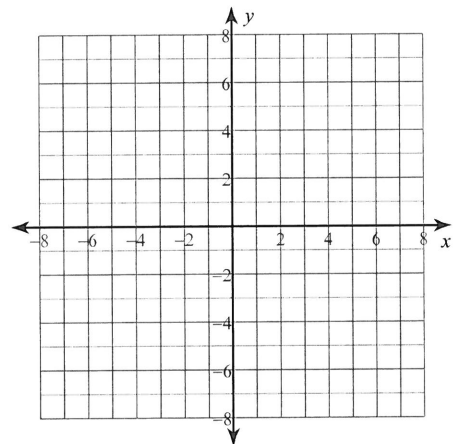
$$8) f(x) = (x - 1)^2 + 3$$



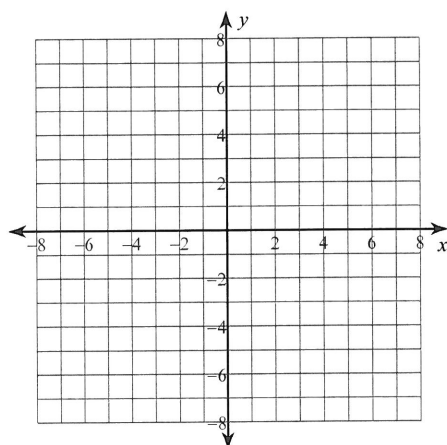
$$9) f(x) = -(x - 7)(x - 3)$$



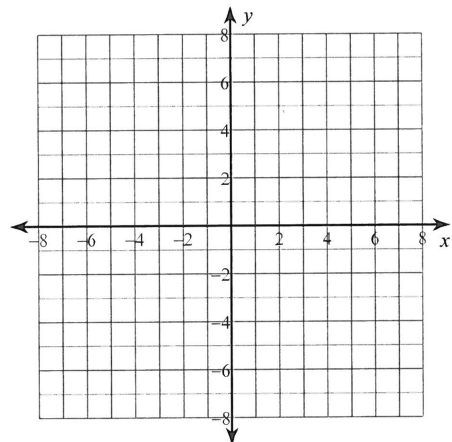
$$10) f(x) = -\frac{1}{2}(x - 7)(x - 3)$$



$$11) f(x) = -\frac{1}{3}(x + 6)(x + 3)$$

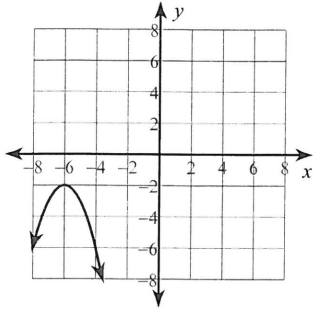


$$12) f(x) = (x - 3)(x + 2)$$



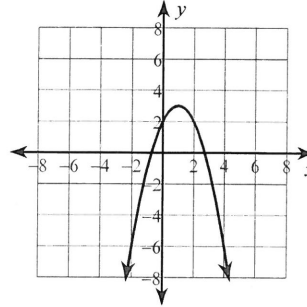
Answers to Graphing Quadratic Functions (ID: 1)

1)



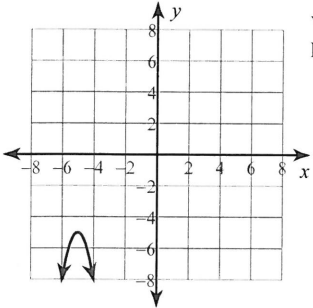
Vertex: $(-6, -2)$
Max value = -2

2)



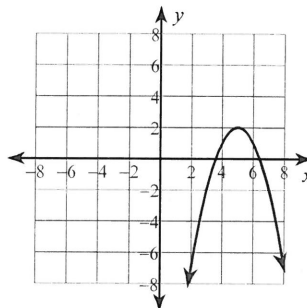
Vertex: $(1, 3)$
Max value = 3

3)



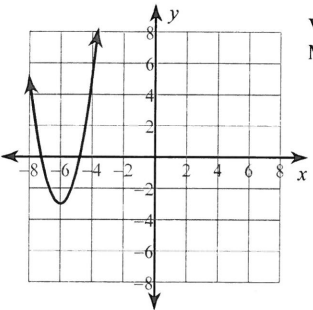
Vertex: $(-5, -5)$
Max value = -5

4)



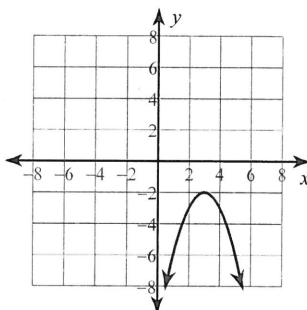
Vertex: $(5, 2)$
Max value = 2

5)



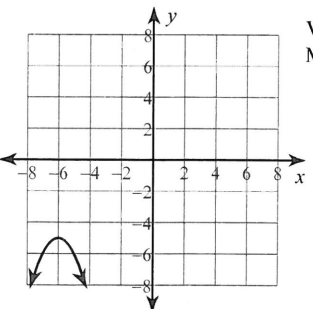
Vertex: $(-6, -3)$
Min value = -3

6)



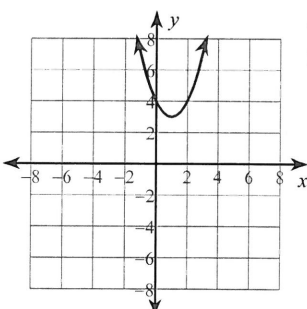
Vertex: $(3, -2)$
Max value = -2

7)



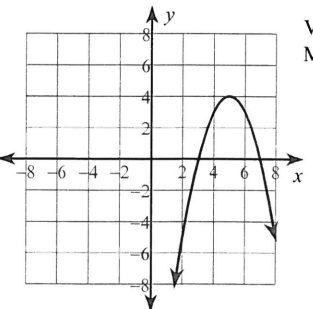
Vertex: $(-6, -5)$
Max value = -5

8)



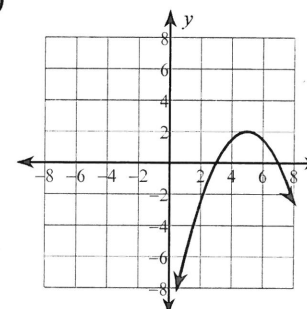
Vertex: $(1, 3)$
Min value = 3

9)



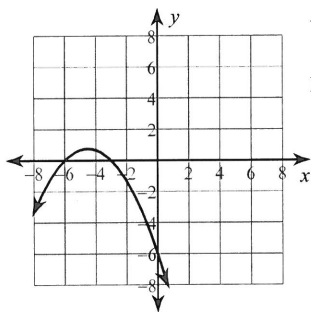
Vertex: $(5, 4)$
Max value = 4

10)



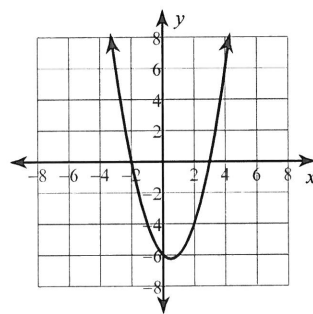
Vertex: $(5, 2)$
Max value = 2

11)



Vertex: $\left(-\frac{9}{2}, \frac{3}{4}\right)$
 Max value = $\frac{3}{4}$

12)



Vertex: $\left(\frac{1}{2}, -\frac{25}{4}\right)$
 Min value = $-\frac{25}{4}$