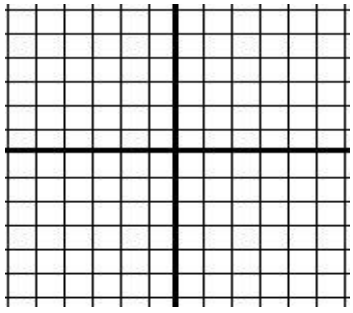
12.7 Graphing Transformations

HW

Sketch the graph of each transformed parent graph. State the critical point.

$f(x)=x^2$ **"Parent Graph"**

Vertex: (,)

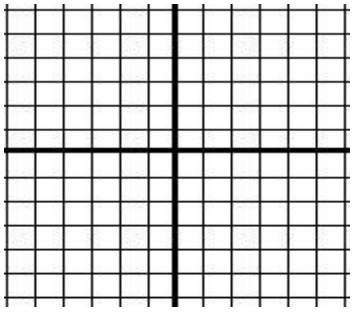


y-int: Zeroes:

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

transformation:

Vertex: (,)

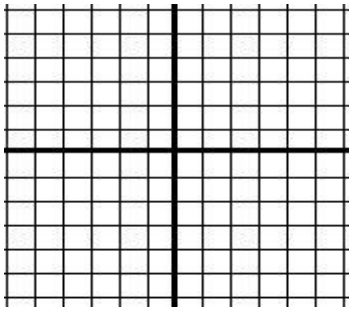


y-int: Zeroes:

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

transformation:

Vertex: (,)

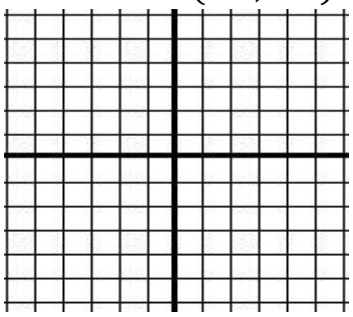


y-int: Zeroes:

(3) $f(x)=x^2+3$

transformation:

Verterx: (,)

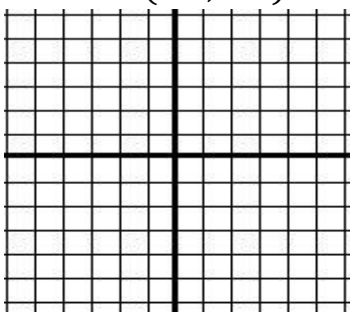


y-int: Zeroes:

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

transformation:

Vertex: (,)

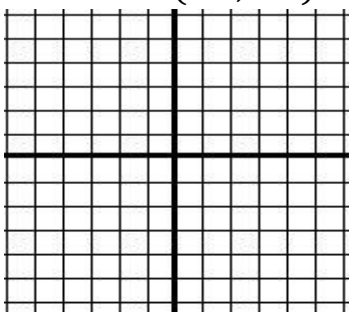


y-int: Zeroes:

(5) $f(x)=(x+1)^2$

transformation:

Vertex: (,)

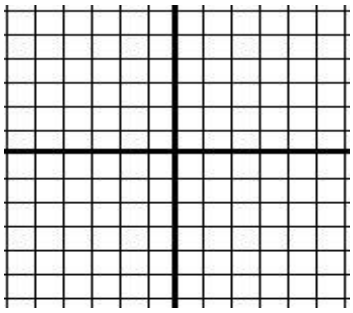


y-int: Zeroes:

(6) $f(x)=\frac{1}{2}x^2$

transformation:

Verterx: (,)

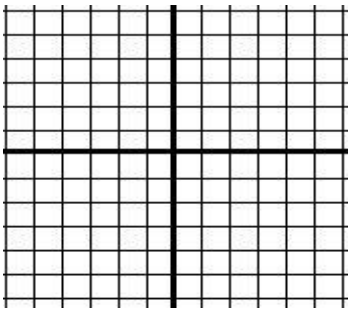


y-int: Zeroes:

(7) $f(x)=2x^2$

transformation:

Vertex: (,)

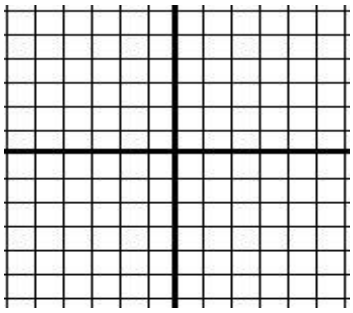


y-int: Zeroes:

(8) $f(x)=(x+5)^2$

transformation:

Vertex: (,)

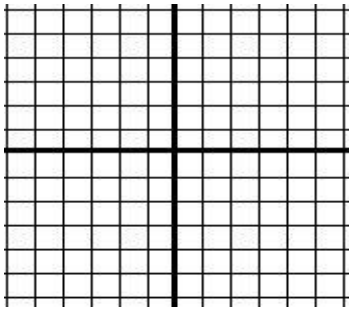


y-int: Zeroes:

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

transformation:

Verterx: (,)

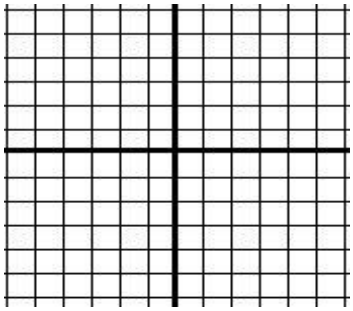


y-int: Zeroes:

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

transformation:

Vertex: (,)

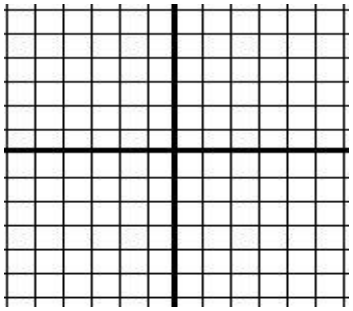


y-int: Zeroes:

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

transformation:

Vertex: (,)

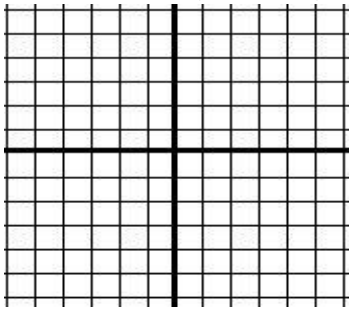


y-int: Zeroes:

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

transformation:

Verterx: (,)

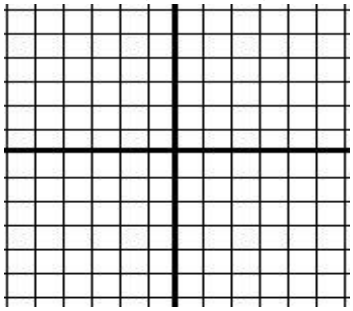


y-int: Zeroes:

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

transformation:

Vertex: (,)

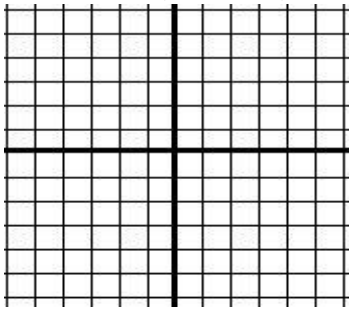


y-int: Zeroes:

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

transformation:

Vertex: (,)

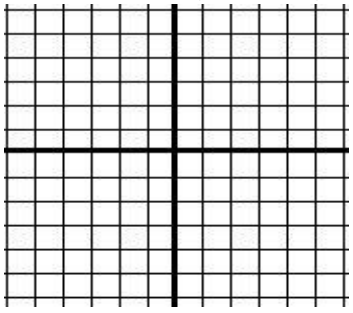


y-int: Zeroes:

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

transformation:

Verterx: (,)

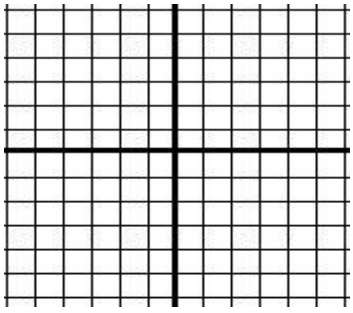


y-int: Zeroes:

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

transformation:

Vertex: (,)

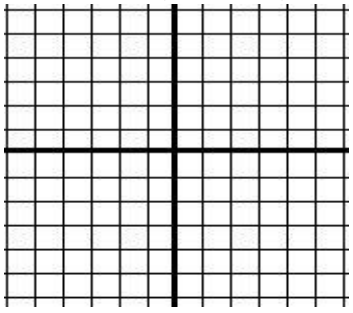


y-int: Zeroes:

(17) $f(x) = \frac{1}{2}x^2 - 3$

transformation:

Vertex: (,)



y-int: Zeroes: