

Find all the parts and graph the quadratic function.

1. Graph: $g(x) = x^2 + 8x + 12$

Direction of opening:

Vertex:

Maximum/Minimum:

Axis of Symmetry:

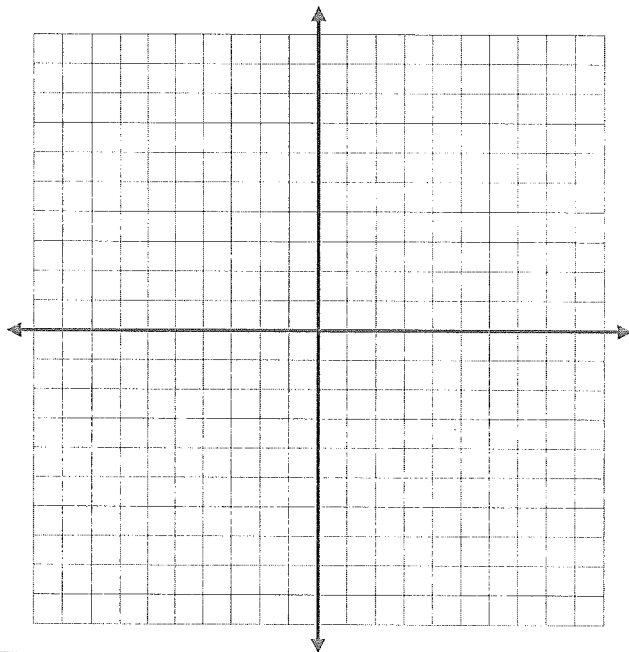
y-intercept:

x-intercept(s):

Domain:

Range:

x	$g(x)$



2. Graph: $f(x) = -2(x - 3)^2 + 2$

Direction of opening:

Vertex:

Maximum/Minimum:

Axis of Symmetry:

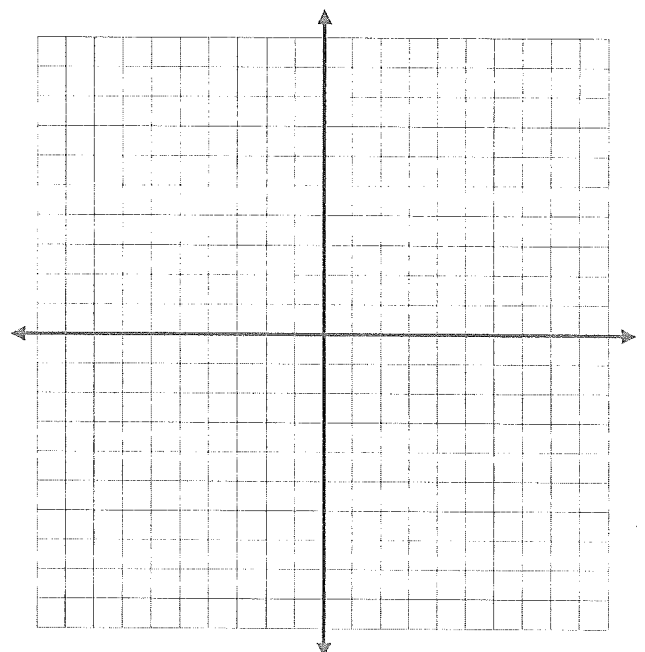
y-intercept:

x-intercept(s):

Domain:

Range:

x	$f(x)$



Write a Quadratic Function Given a Graph in Vertex Form

7. After a heavy snowfall, Steve and Sara made an igloo. The dome of the igloo is in the shape of a parabola, and the height of the igloo in inches is given by the function $f(x) = a(x-h)^2 + k$. Use the graph to find an equation for $f(x)$.

