

Find all the parts and graph the quadratic function in vertex form. Use the table provided as needed.

1. Graph: $g(x) = (x+1)^2 - 4$

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:

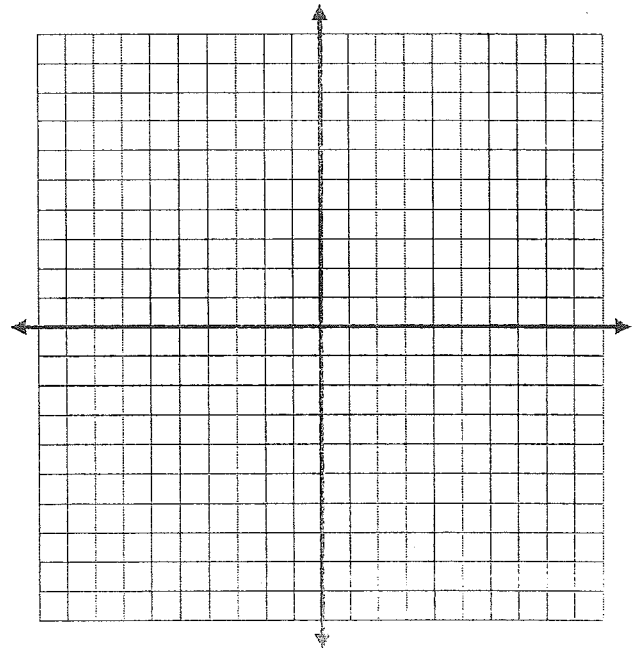
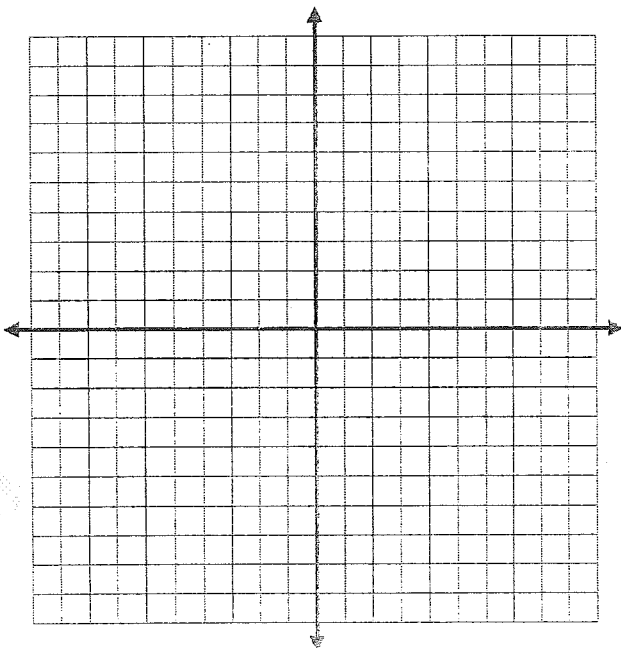
y-intercept:

x-intercept(s):

Domain:

Range:

x	$f(x)$



3. Graph: $g(x) = 2(x - 1)^2 - 2$

Direction of opening:

Vertex:

Maximum/Minimum:

Axis of Symmetry:

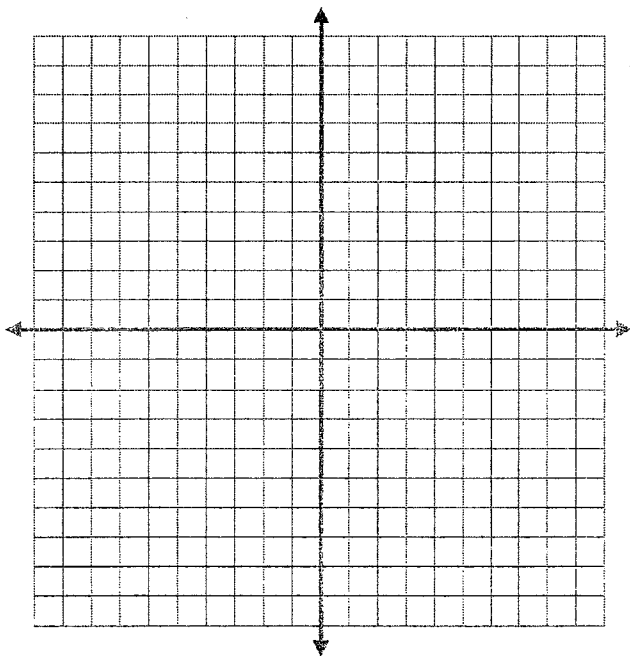
y-intercept:

x-intercept(s):

Domain:

Range:

x	$g(x)$



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

Direction of opening:

Vertex:

Maximum/Minimum:

Axis of Symmetry:

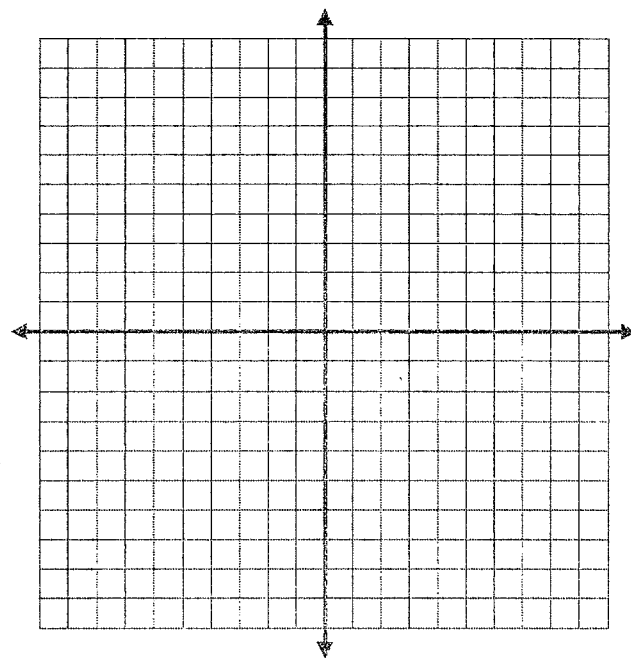
y-intercept:

x-intercept(s):

Domain:

Range:

x	$f(x)$



Write an equation for the function represented by the graph of a parabola that is the translation of $f(x) = x^2$

5. The graph is translated 8 units to the left and 3 units down.

6. The graph is translated 4 units to the right and 8 units up.