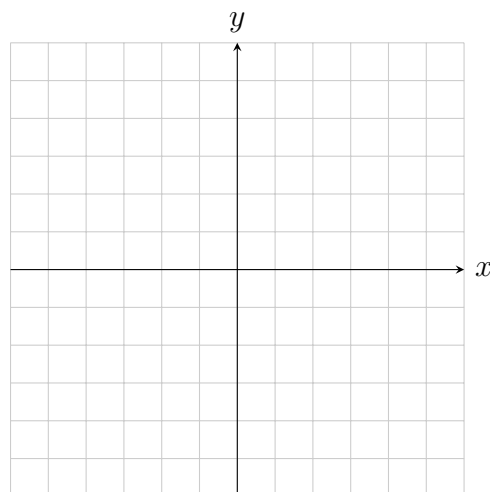
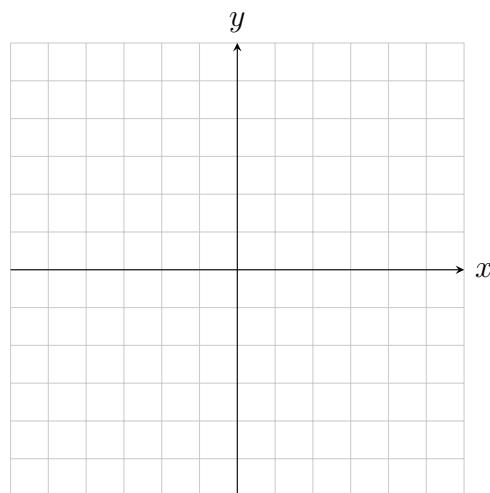


1. Given the following functions, determine the i) vertex, ii)  $y$ -stretch, iii) whether it opens up or down, iv) the  $y$ -intercept, v) the  $x$ -intercepts, vi) any other points needed to make a nice graph. Then graph the function.

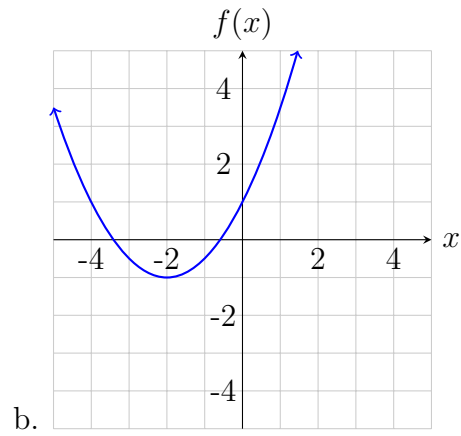
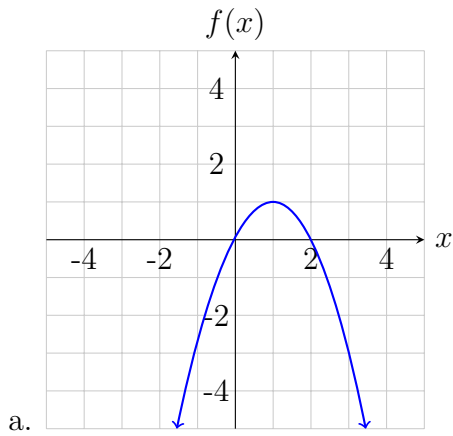
$$f(x) = (x - 3)^2 + 2$$



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



2. Given the following parabolas, determine the vertex and another point on the graph and use these to determine the symbolic form of the function in vertex form.



3. Given the function  $f(x) = -\frac{2}{3}(x - 2) + 4$  determine the slope and a point on the line and use this information to graph the function.

