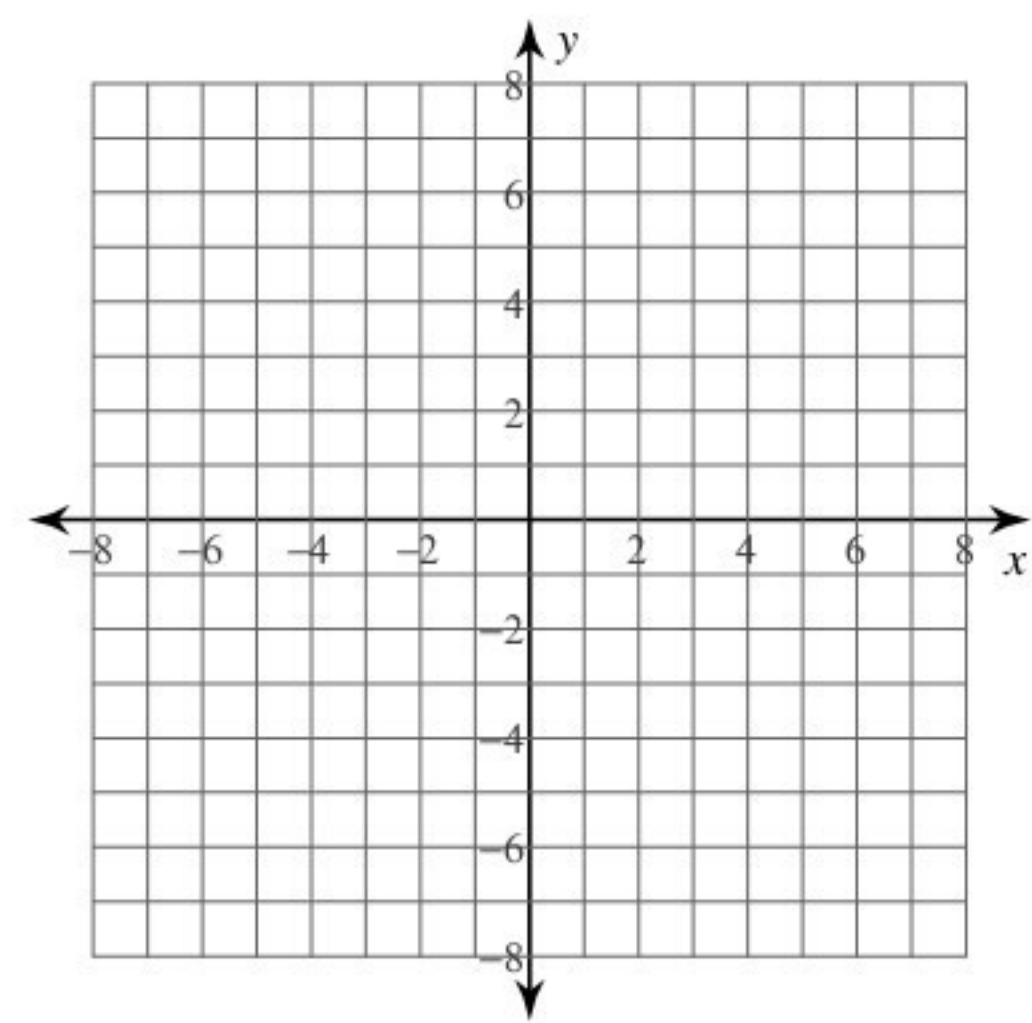
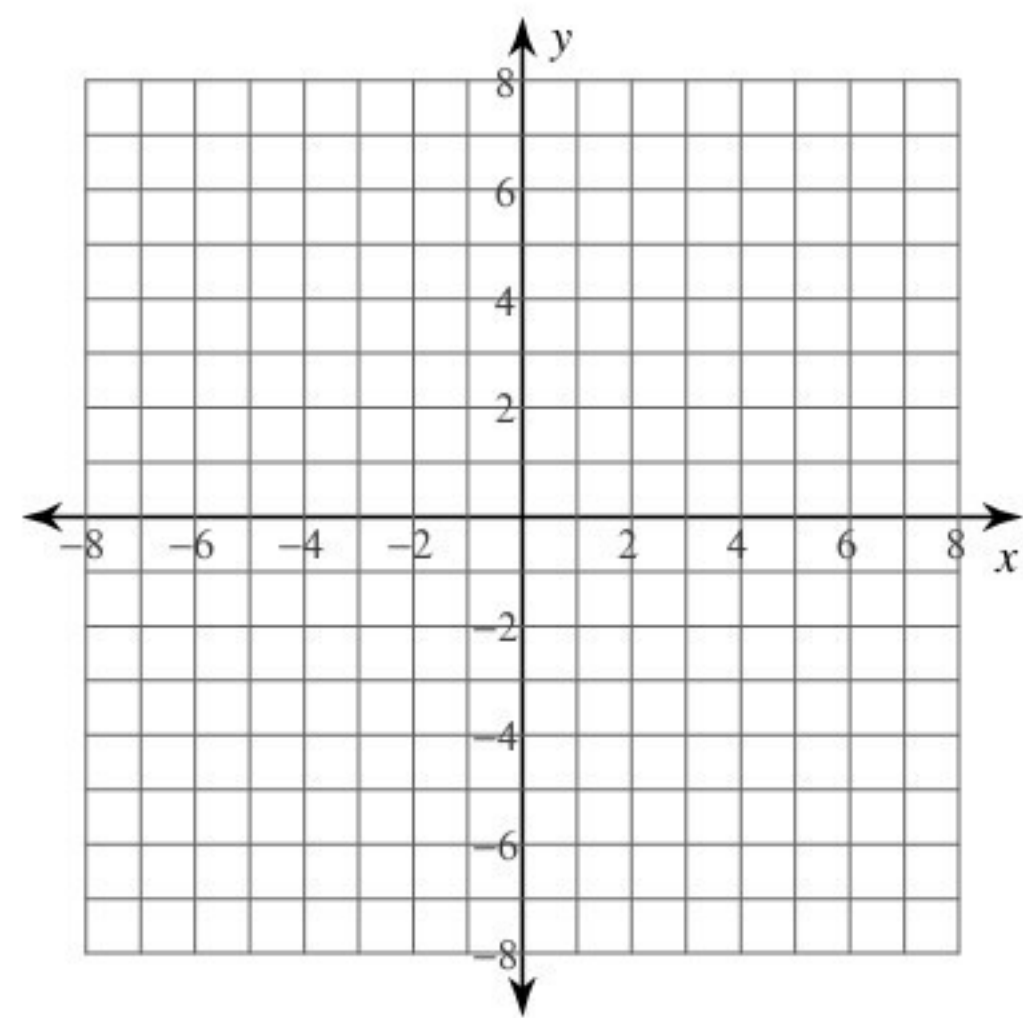


Identify the vertex and axis of symmetry of each. Then sketch the graph.

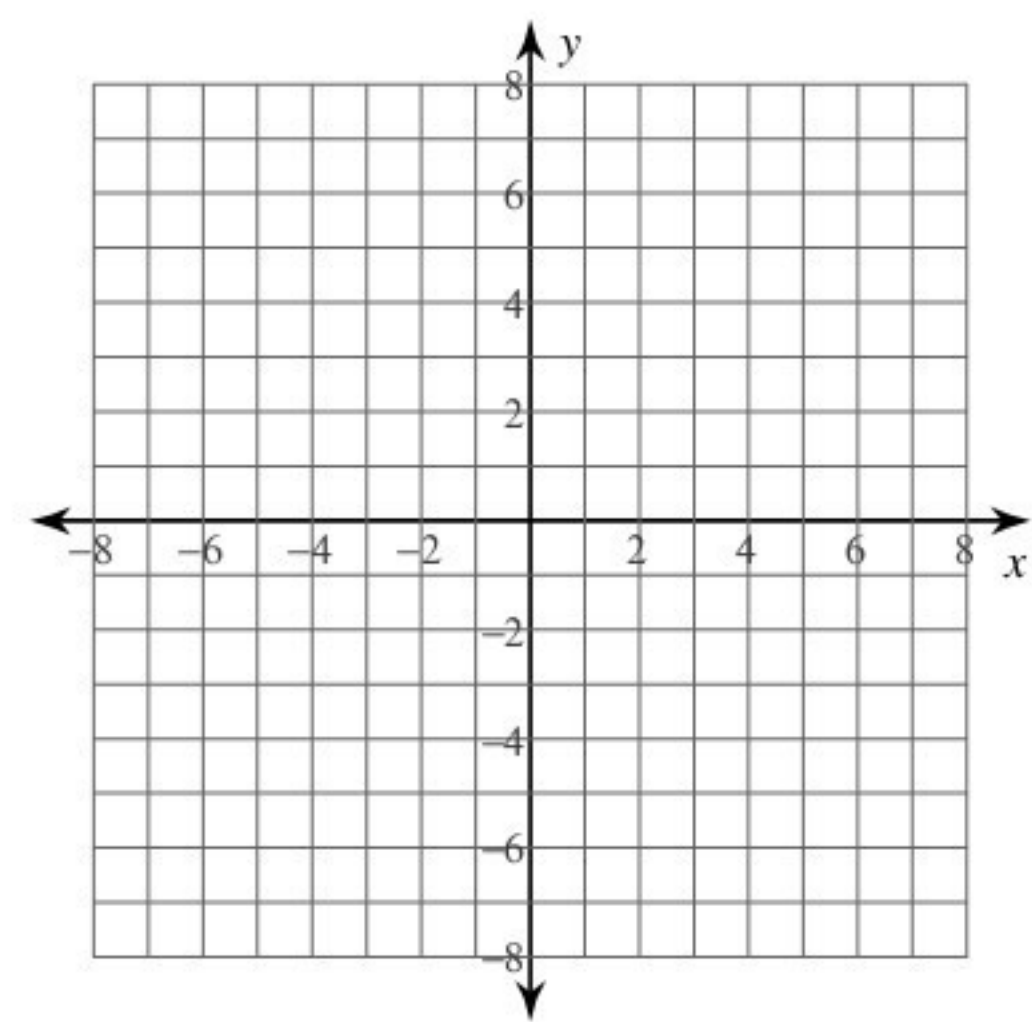
15) $f(x) = -3(x - 2)^2 - 4$



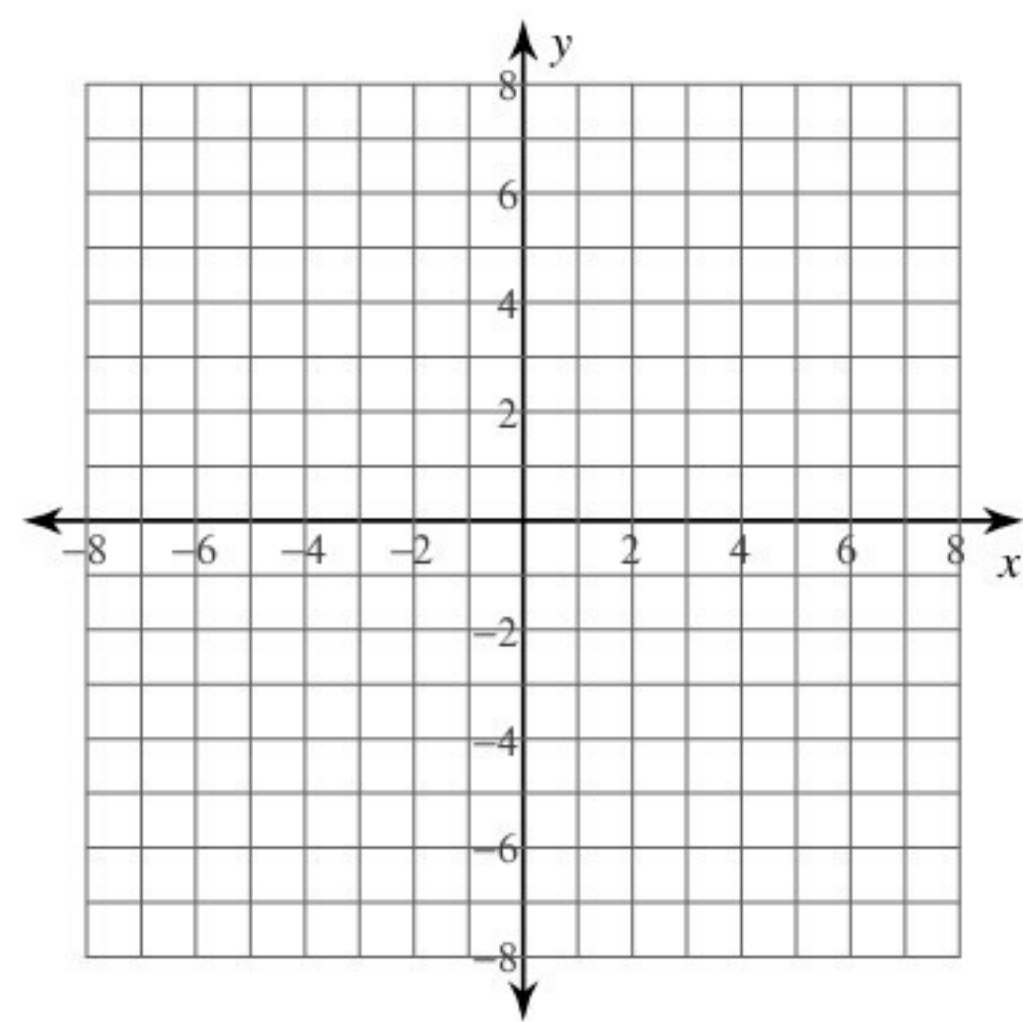
16) $f(x) = -\frac{1}{4}(x - 1)^2 + 4$



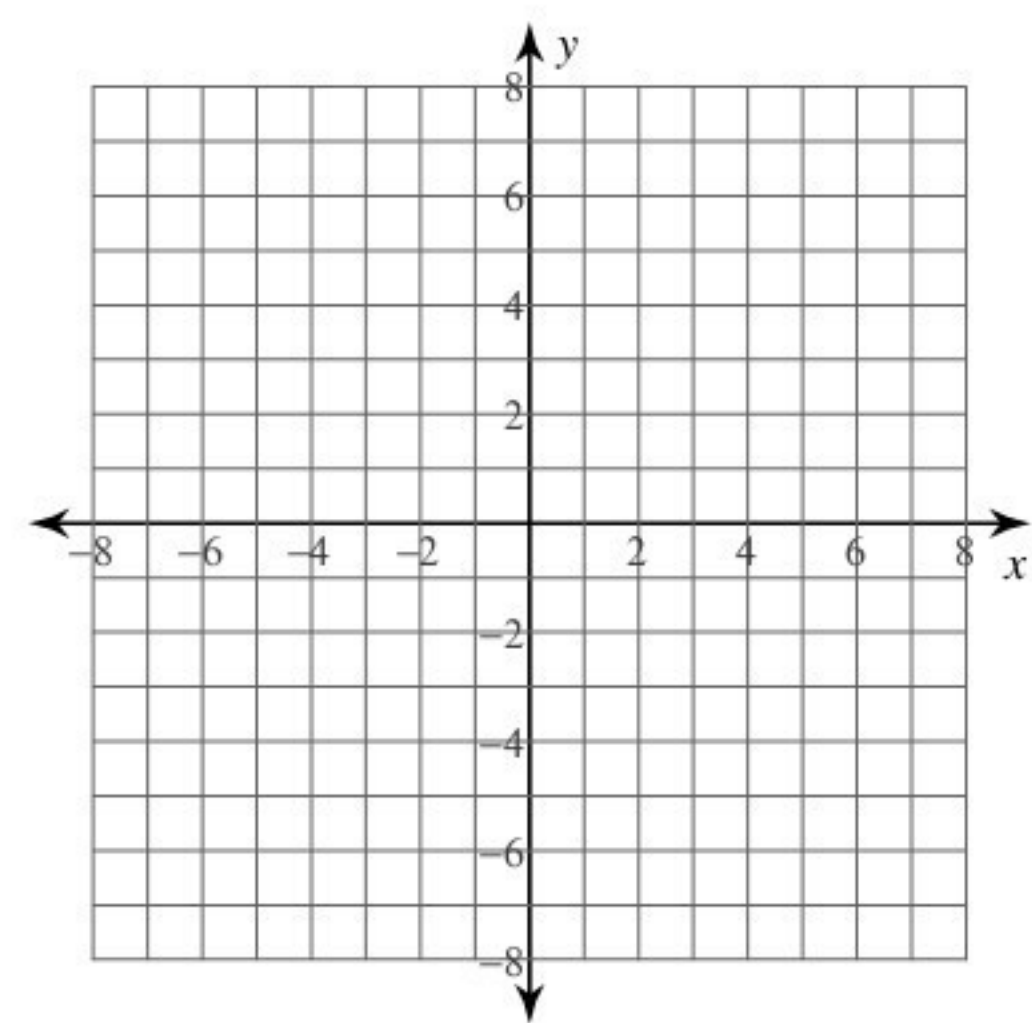
17) $f(x) = \frac{1}{4}(x + 4)^2 + 3$



18) $f(x) = \frac{1}{4}(x + 5)^2 + 2$



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



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

