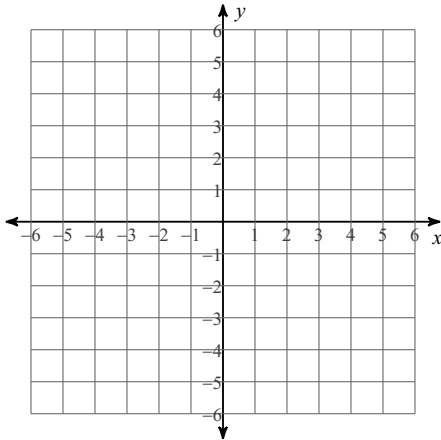


Review Topic #4: Graphing Functions by Transformation

Graph each equation by transformation.

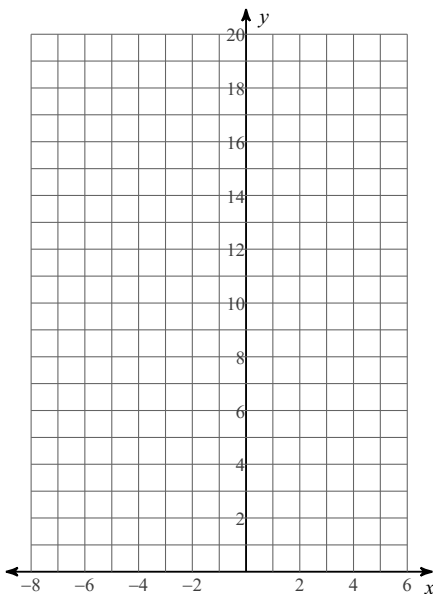
$f(x) = a(x-h)+k$

1) $y = -3|x - 3| + 4$



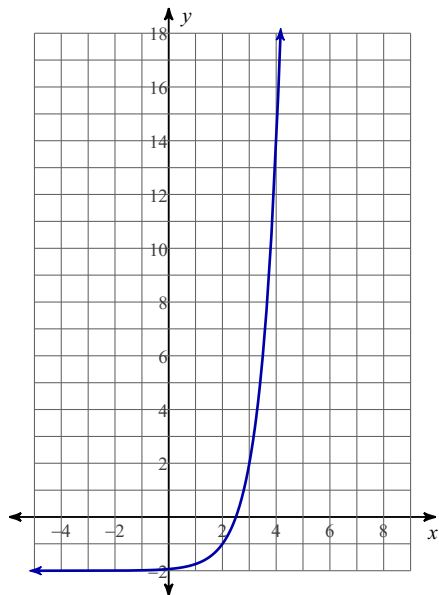
Sketch the graph of each function by transformation $f(x) = a(x - h) + k$.

2) $f(x) = 2^{x+1} + 2$



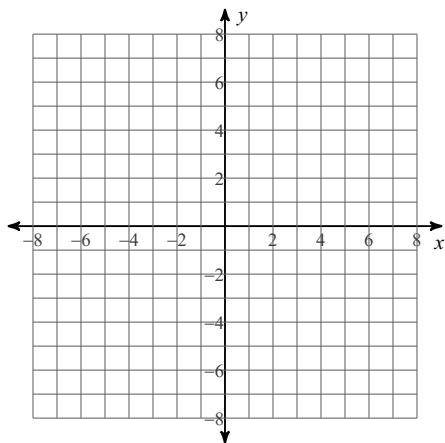
Write an equation for each graph.

3)

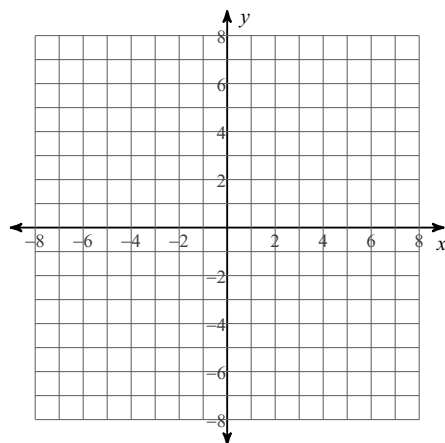


Identify the vertex of each. Then sketch the graph.

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

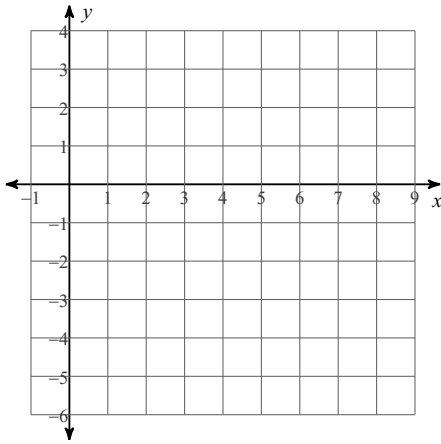


5) $y = \frac{1}{4}(x + 1)^2 + 6$

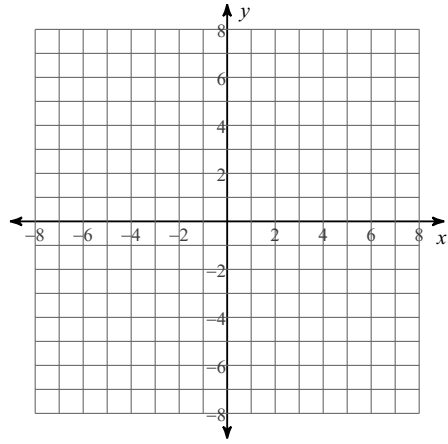


Sketch the graph of each function.

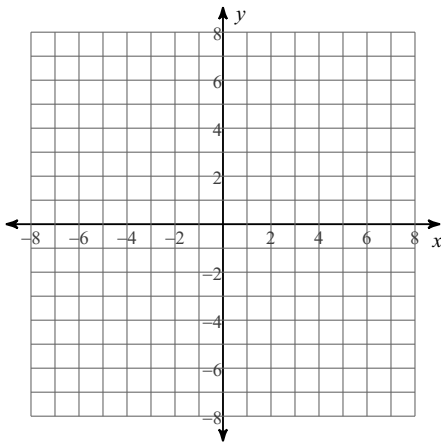
6) $f(x) = -2(x - 1)^2 + 3$



7) $y = \sqrt{x - 4}$



8) $y = \sqrt{x} + 1$



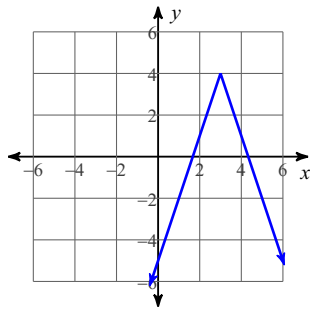
Identify the domain and range of each.

9) $y = \sqrt{x - 1} + 3$

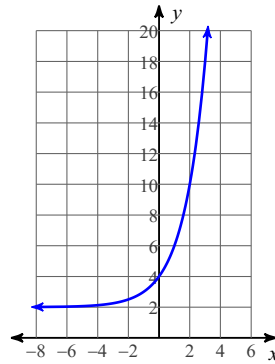
10) $y = \sqrt{x} + 4$

Answers to Review Topic #4: Graphing Functions by Transformation (ID: 1)

1)

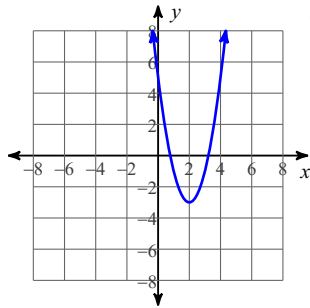


2)



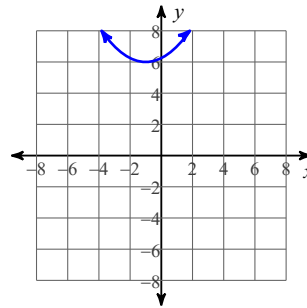
3) $f(x) = 4^{x-2} - 2$

4)



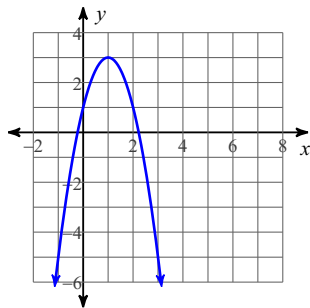
Vertex: $(2, -3)$

5)

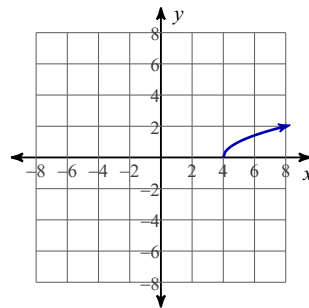


Vertex: $(-1, 6)$

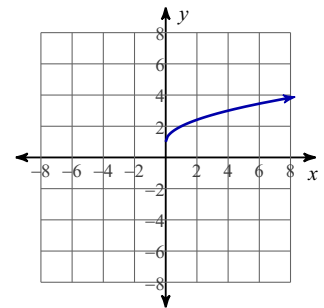
6)



7)



8)



9) Domain: $x \geq 1$
Range: $y \geq 3$

10) Domain: $x \geq 0$
Range: $y \geq 4$