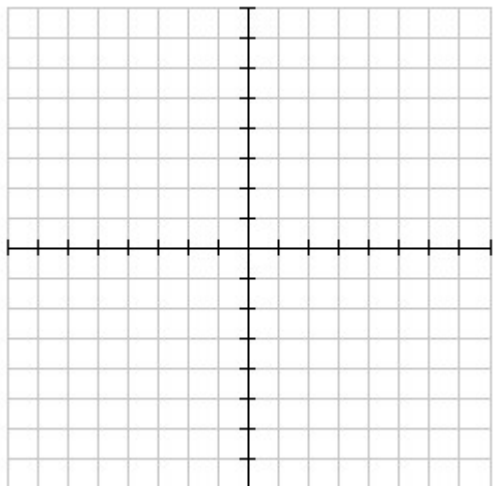
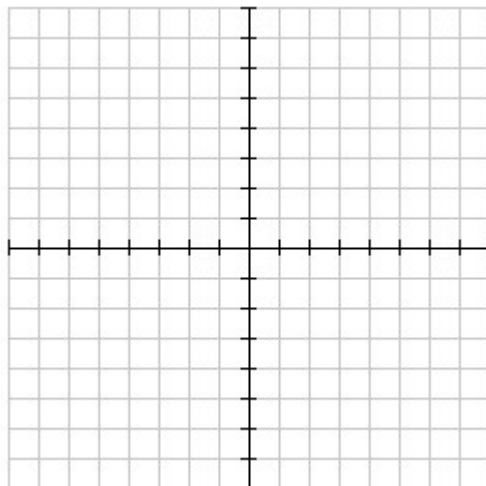


## Parent Graph Transformations: Examples and Practice

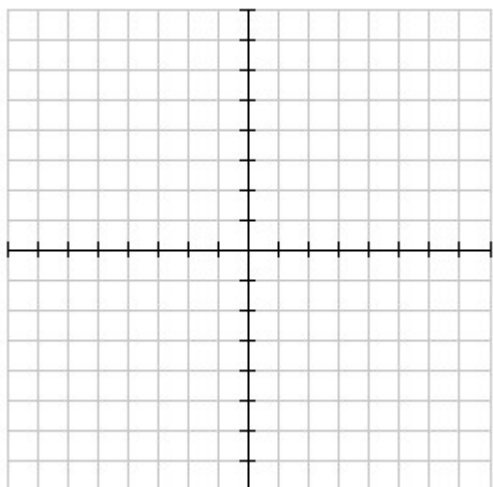
1.  $f(x) = -x^3$



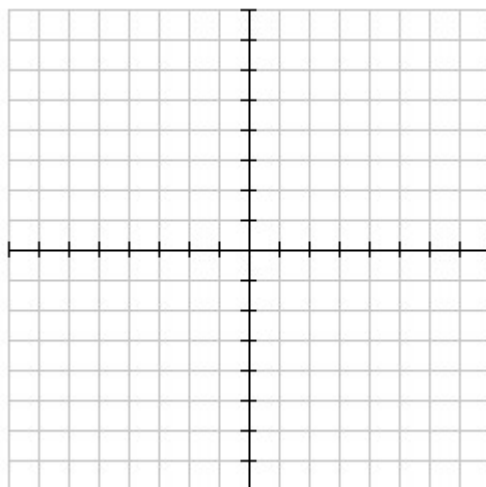
2.  $h(x) = x^3 - 1$  and  $k(x) = (x-1)^3 + 3$



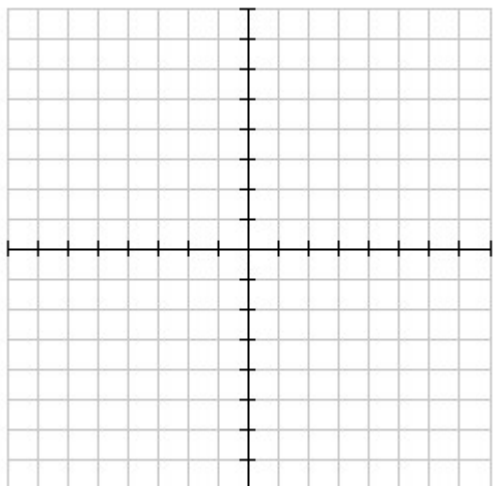
3.  $f(x) = \frac{1}{2}x^2$



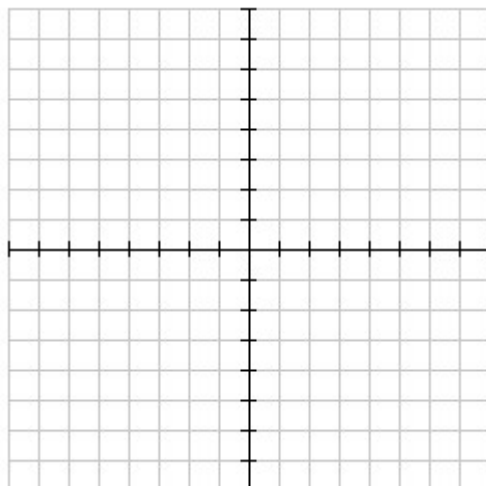
4.  $h(x) = -\frac{1}{2}(x-3)^2 + 2$



5.  $f(x) = -\sqrt{x-3}$

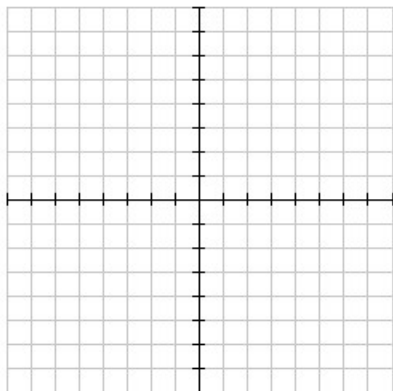


6.  $k(x) = \frac{1}{x+2} - 4$

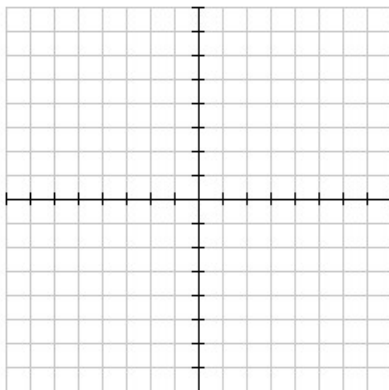


## Parent Graph Transformations: Examples and Practice

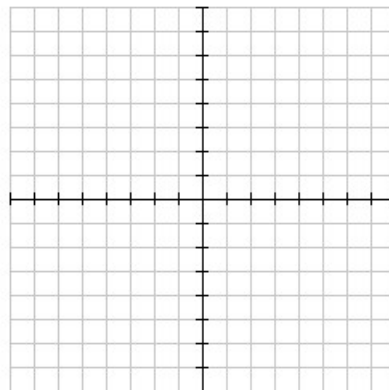
7a.  $f(x) = (x-1)^2 - 2$



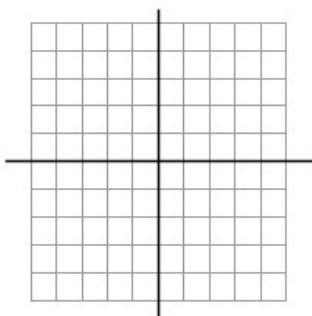
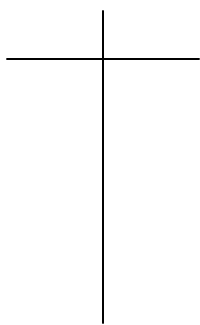
7b.  $y = f(|x|)$



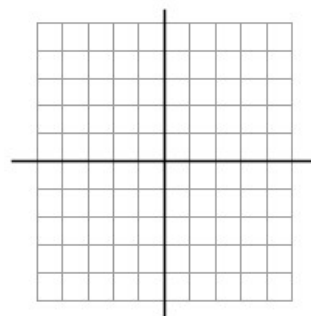
7c.  $y = |f(x)|$



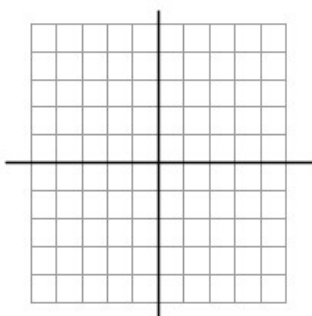
8. Given the piecewise graph of  $y = f(x)$  below, sketch the following five transformations of it.



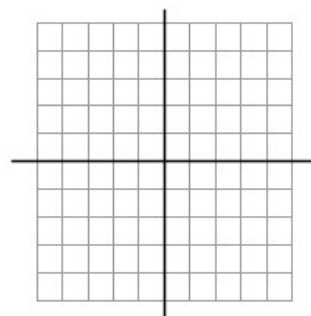
a.  $y = \frac{1}{3}f(x) - 1$



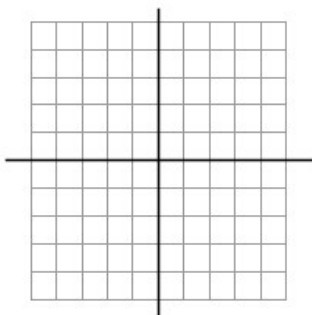
b.  $y = f(2x) - 3$



c.  $y = f(|x|)$



d.  $y = -f(x+3)$



e.  $y = f(-x) - 2$

