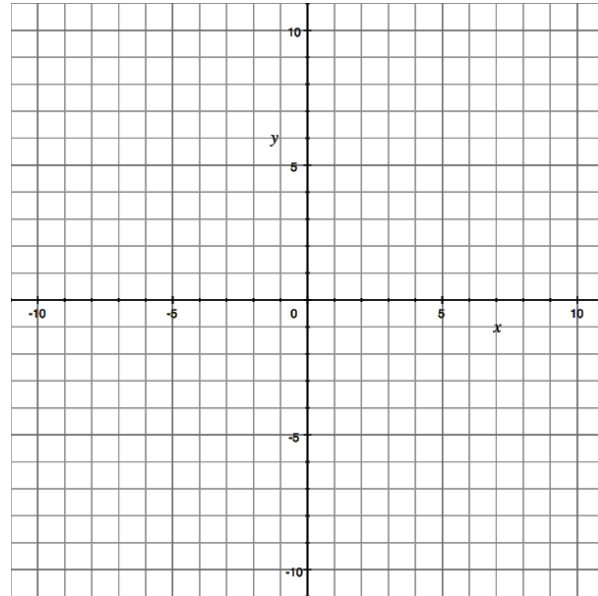
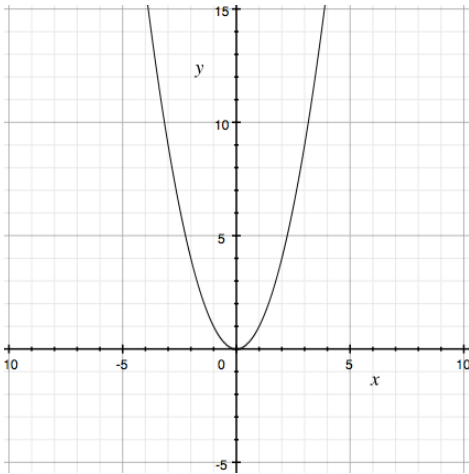


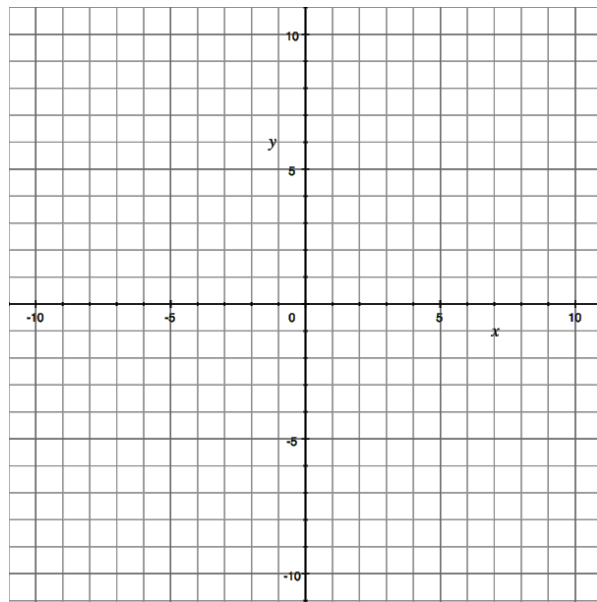
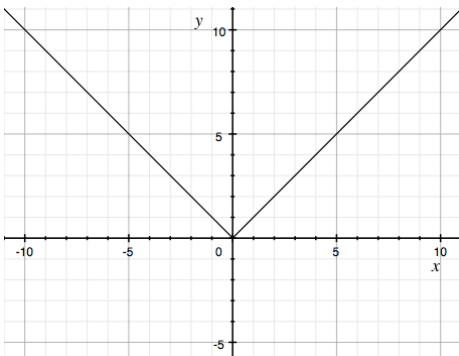
Number:  
Title:

Textbook Section:

1. Use the graph of  $f(x) = x^2$  to sketch the graph of  $f(x) = x^2 + 2$ .

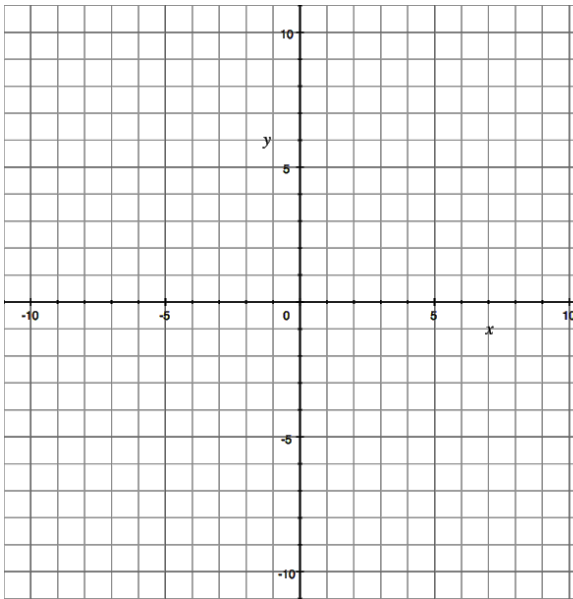


2. Use the graph of  $f(x) = |x|$  to sketch the graph of  $f(x) = |x| + 2$ .

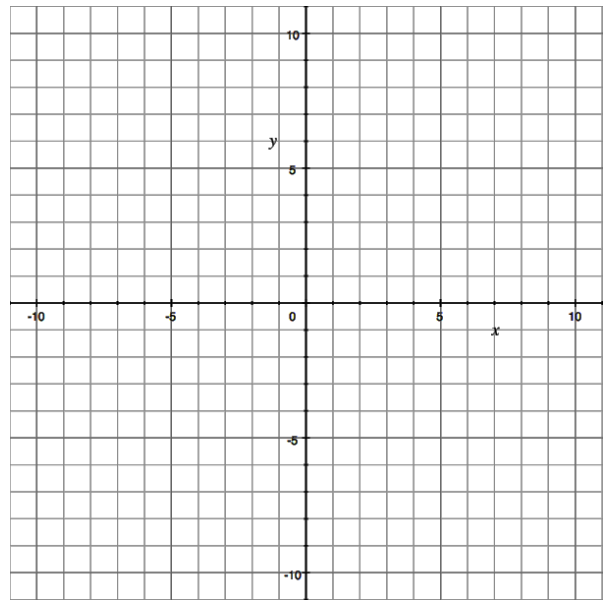


Sketch the graph of each function using transformations.

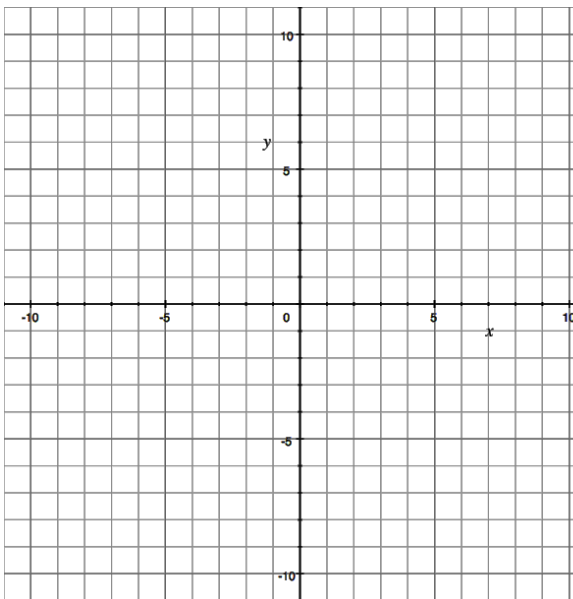
3.  $f(x) = (x+2)^2$



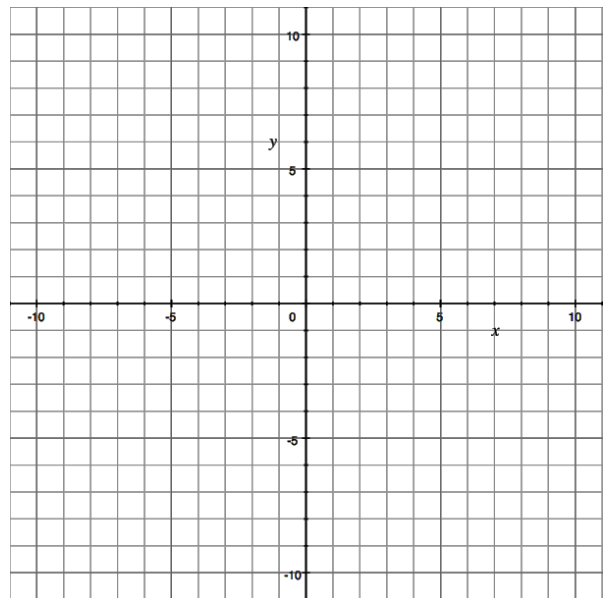
4.  $f(x) = |x+2|$



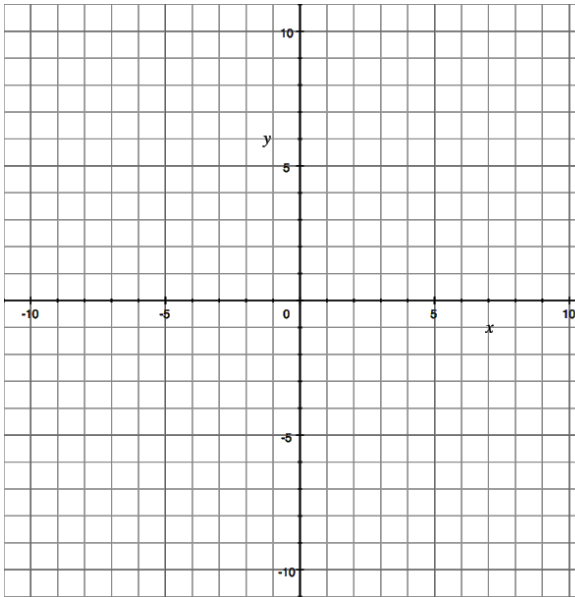
5.  $f(x) = x^3 + 1$



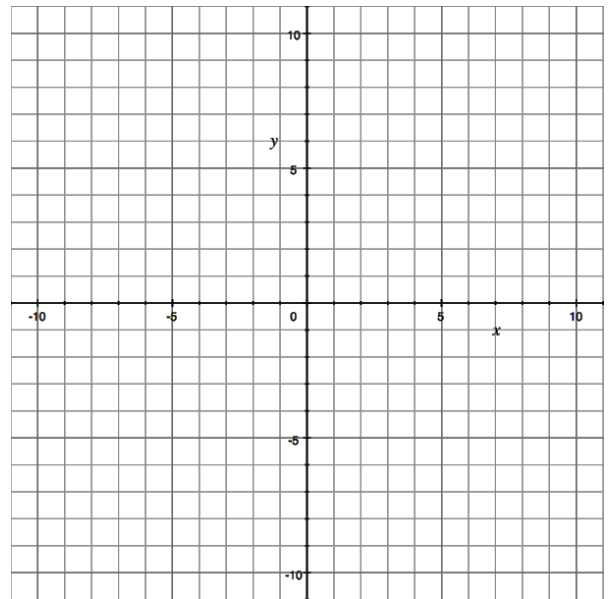
6.  $f(x) = (x-3)^3$



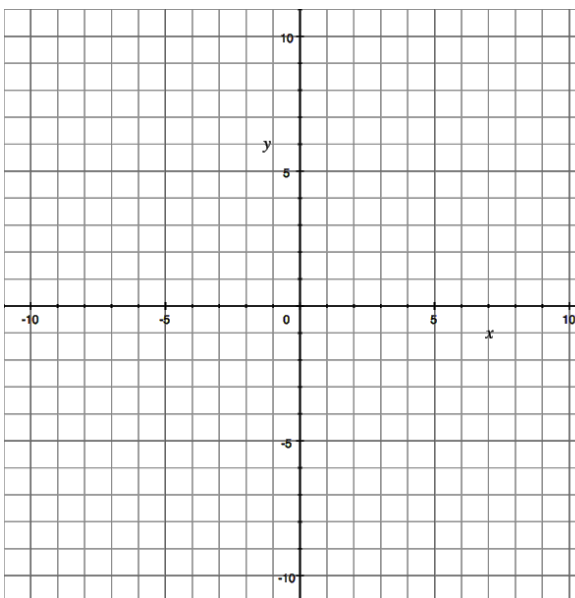
7.  $f(x) = (x-3)^3 + 1$



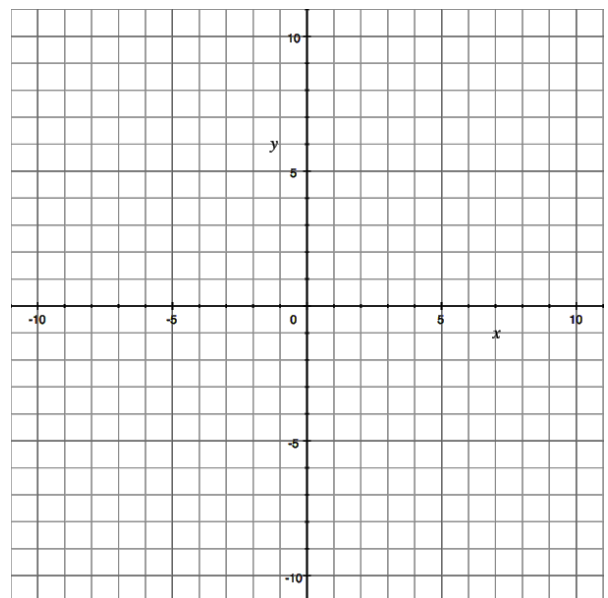
8.  $f(x) = -x^2$



9.  $f(x) = -|x|$

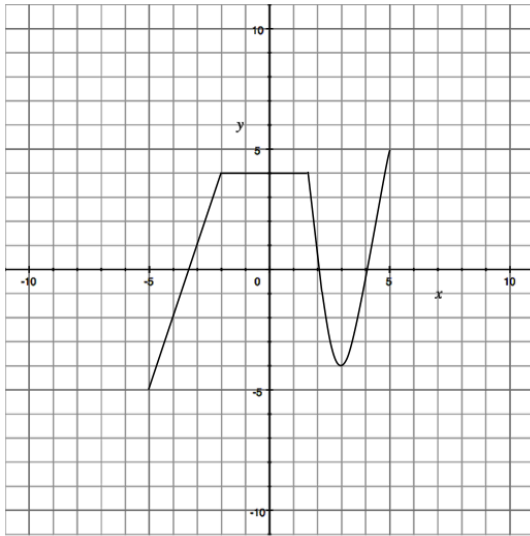


10.  $f(x) = -\sqrt{x+5} - 2$

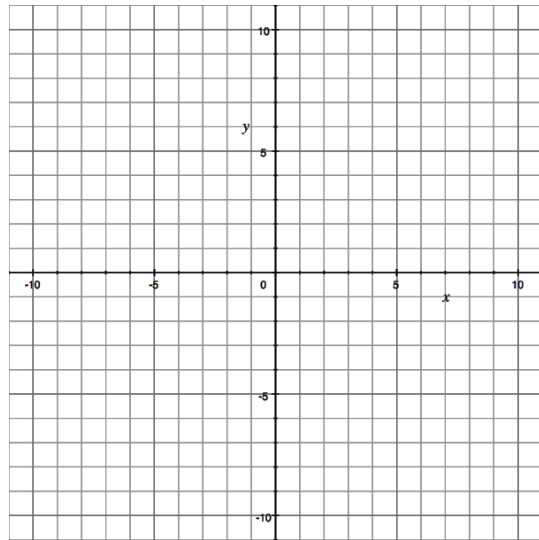


Use the graph of  $f$  to sketch the indicated transformation.

11.

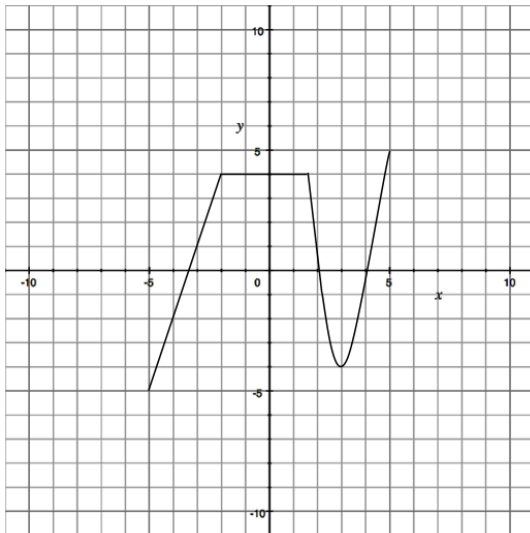


$f(x)$

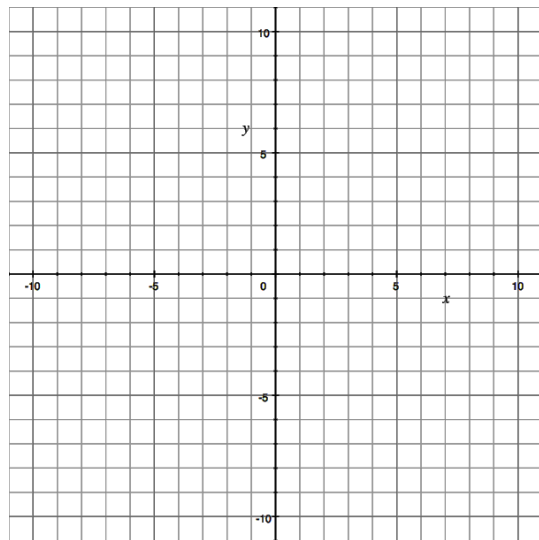


$y = f(x - 2) + 4$

12.



$f(x)$



$y = -f(x + 3)$