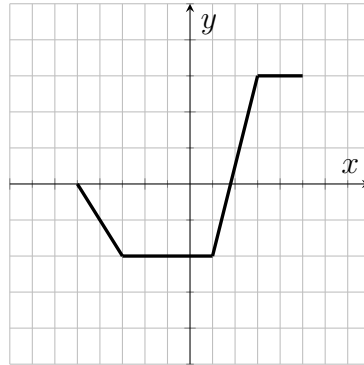


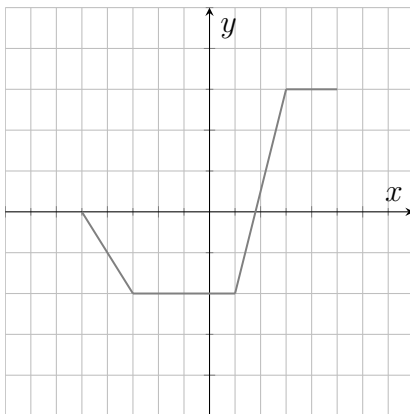
Name \_\_\_\_\_

Homework 7  
Section 1.5

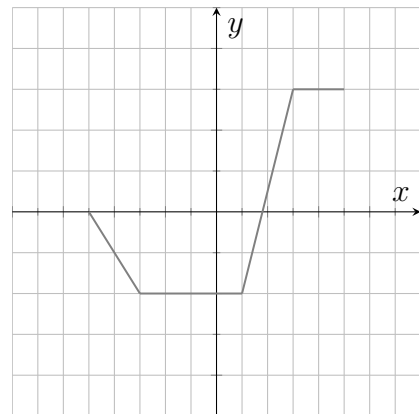
1. (8) Use the graph of  $y = f(x)$  given below to sketch the graphs of each of the following.



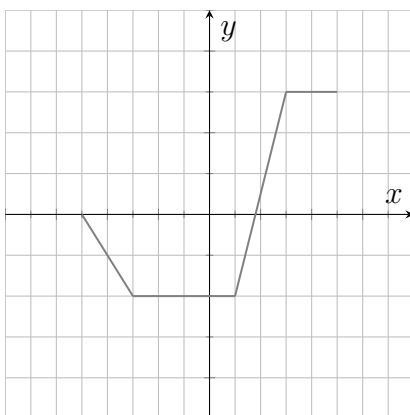
a)  $y = f(x + 2)$



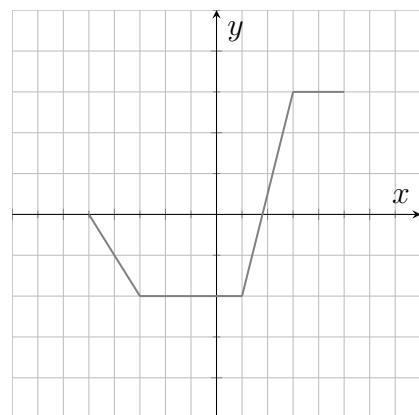
b)  $y = f(x) - 2$



c)  $y = f(x - 3) + 2$

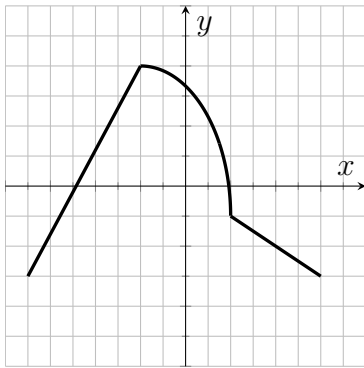


d)  $y = -f(x)$

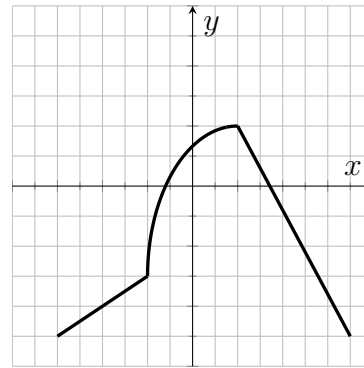


2. (3) Write an equation which transforms  $y = x^3$  by shifting it right 4 units and reflecting it across the  $x$ -axis.

3. (3) The graph on the left is the graph of the function  $f(x)$ . The graph has then been transformed via vertical shifts, horizontal shifts, and/or reflections to obtain the graph of  $g(x)$  shown on the right. Determine the function  $g(x)$  in terms of  $f(x)$  (i.e. insert the appropriate transformations).



The graph of  $y = f(x)$



The graph of  $y = g(x)$

4. (2ea) If  $(4, 7)$  is a point on the graph of  $y = h(x)$ , determine a point which MUST be on the graph of the following:

a)  $y = h(x - 1) + 1$

b)  $y = -h(x + 2)$

c)  $y = -h(x - 3) + 10$