Activity 1: Explore Transformations

Given: Graph of f

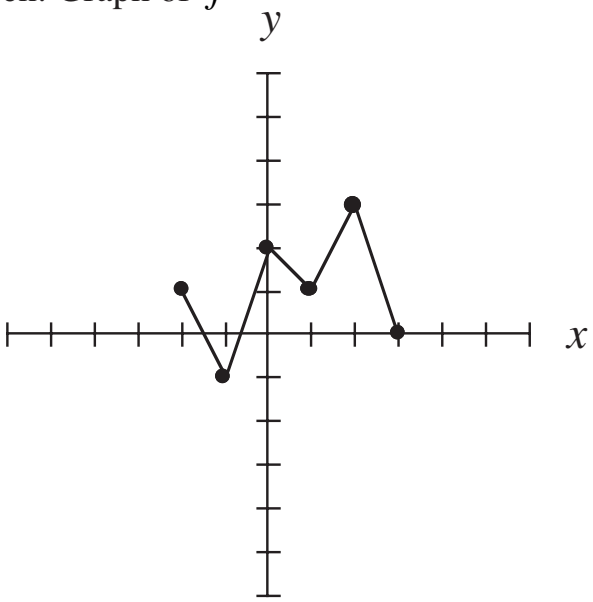


Table for f

$f(-2) = 1$

$f(-1) = -1$

$f(0) = 2$

$f(1) = 1$

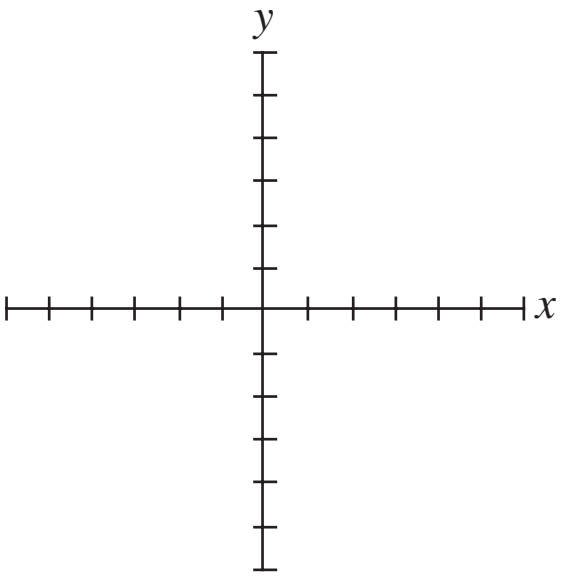
$f(2) = 3$

$f(3) = 0$

Complete tables and sketch graphs of:

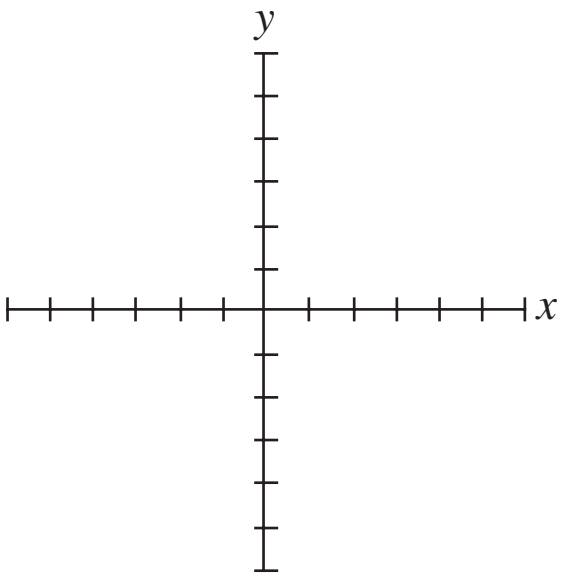
1. $y = f(x+2)$

x	y
-4	
-3	
-2	
-1	
0	
1	



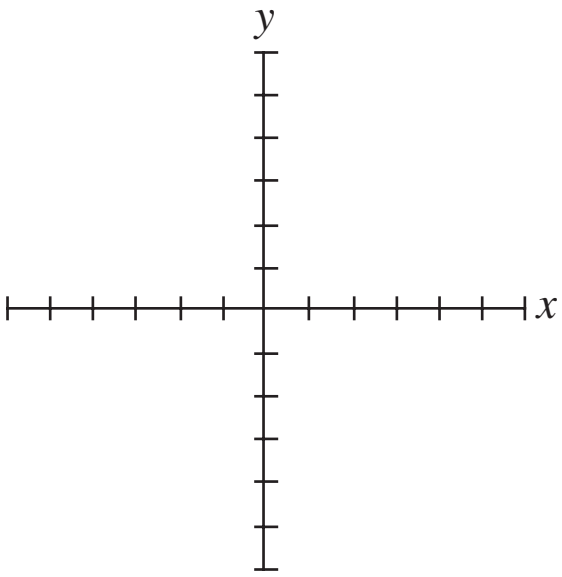
2. $y = f(x-2)$

x	y
0	
1	
2	
3	
4	
5	



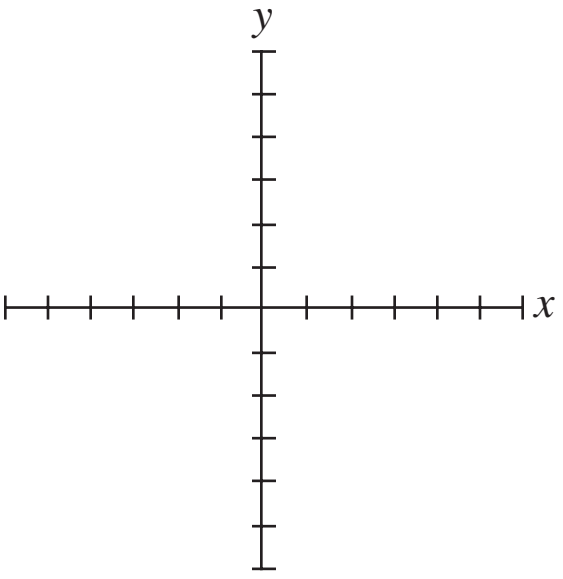
3. $y = f(x)+2$

x	y
-2	
-1	
0	
1	
2	
3	



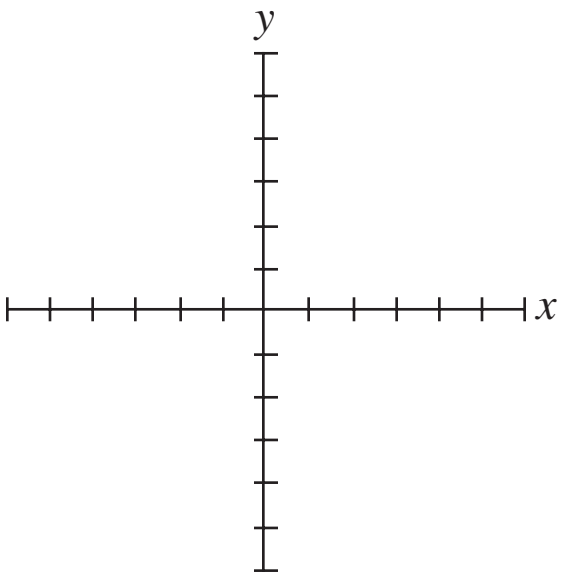
4. $y = f(x)-2$

x	y
-2	
-1	
0	
1	
2	
3	



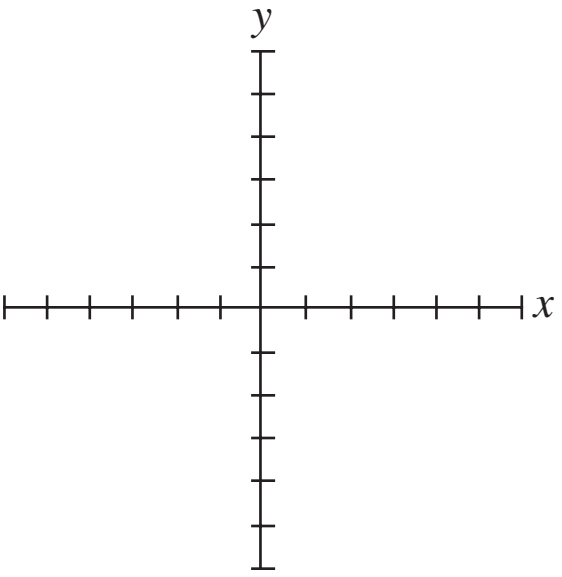
5. $y = f(2x)$

x	y
-1	
$-\frac{1}{2}$	
0	
$\frac{1}{2}$	
1	
$\frac{3}{2}$	



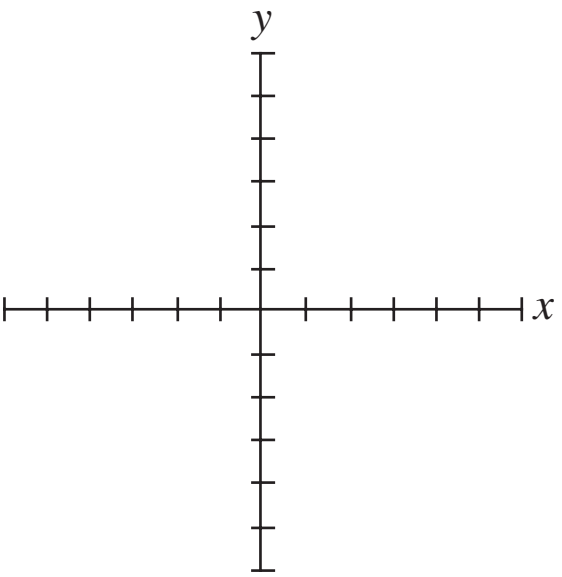
6. $y = f\left(\frac{1}{2}x\right)$

x	y
-4	
-2	
0	
2	
4	
6	



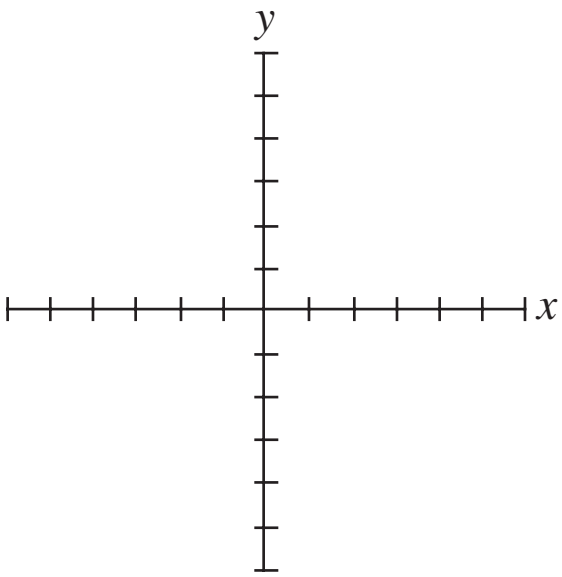
7. $y = 2f(x)$

x	y
-2	
-1	
0	
1	
2	
3	



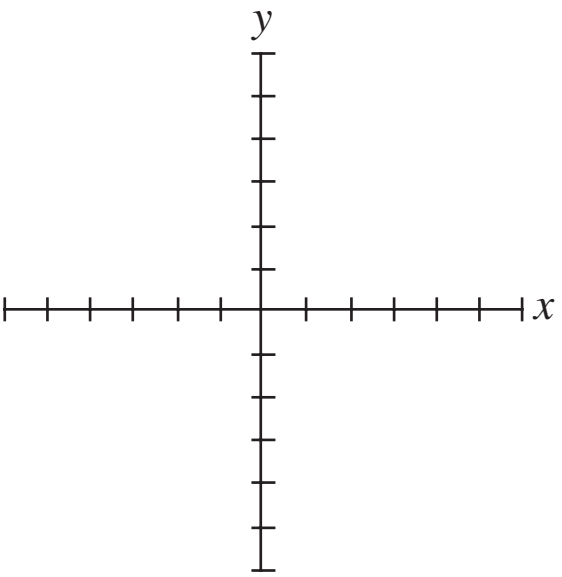
8. $y = \frac{1}{2} f(x)$

x	y
-2	
-1	
0	
1	
2	
3	



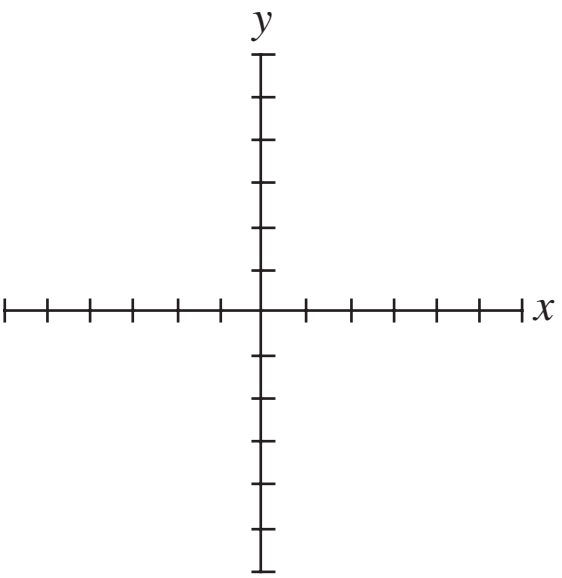
9. $y = f(-x)$

x	y
-3	
-2	
-1	
0	
1	
2	



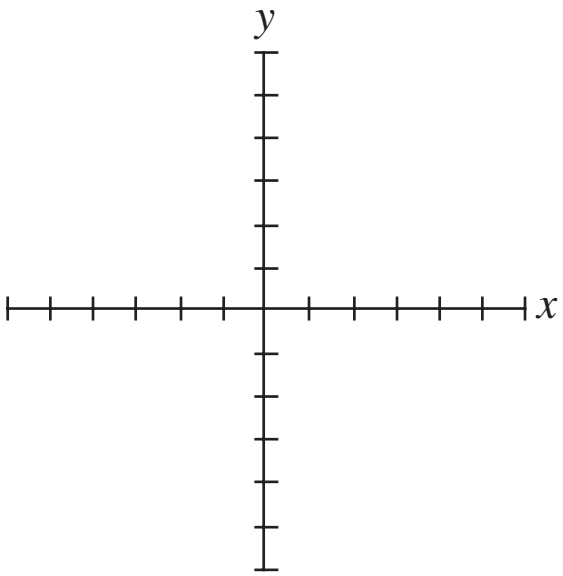
10. $y = -f(x)$

x	y
-2	
-1	
0	
1	
2	
3	



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

x	y
-2	
-1	
0	
1	
2	
3	



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

x	y
-3	
-2	
-1	
0	
1	
2	
3