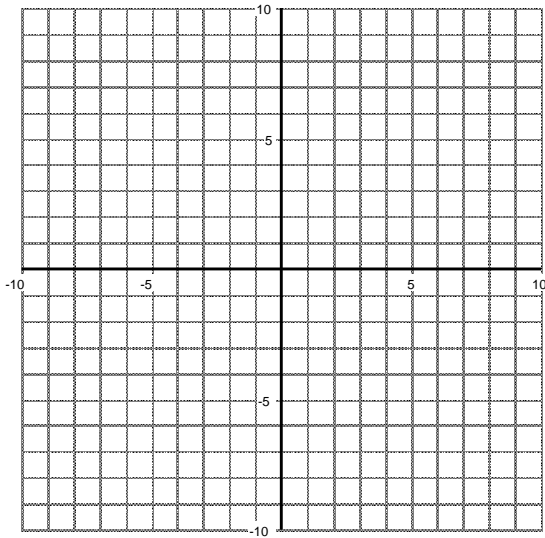


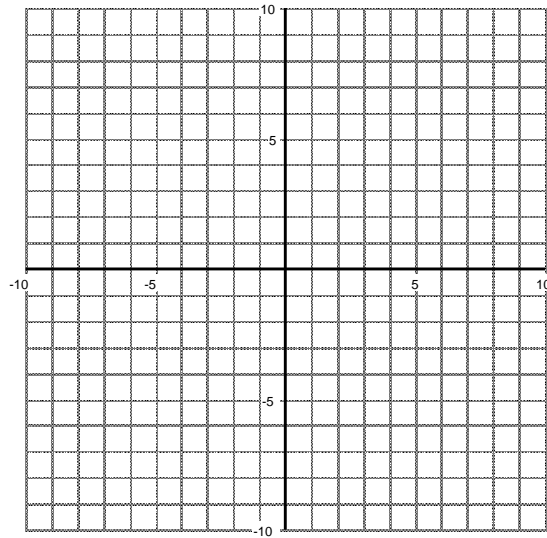
Sections 5.1 – 5.4

1. Graph each of the following transformations of $f(x) = \sqrt{x}$.

a. $g(x) = \sqrt{-x}$

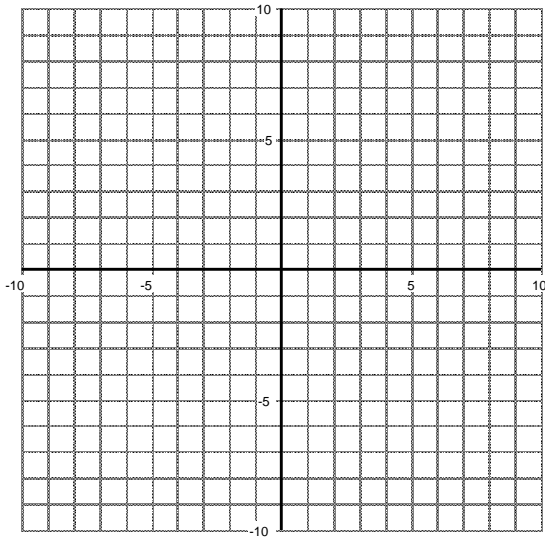


b. $h(x) = 3 - \sqrt{-x}$

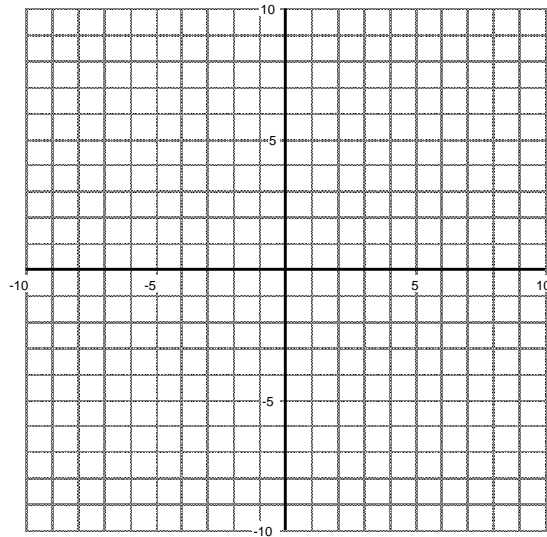


2. Graph each of the following transformations of $f(x) = |x|$.

a. $g(x) = 2|x - 3|$



b. $k(x) = -2|x - 3| + 5$



3. Circle the condition which guarantees that the graph will be symmetric with respect to the y-axis.

$f(-x) = -f(x)$ $f(-x) = -f(-x)$ $f(-x) = f(x)$

4. Let $g(x) = \ln(x)$. Write a function that will translate the graph of g three units to the left and one unit up.

5. Fill in the following table. If enough information is not given, mark an "X".

x	-2	-1	0	1	2	3
$f(x)$	-5	11	2	-3	7	9
$g(x)=f(x+1)$						
$h(x) = f(2x)$						
$j(x)=f(-x) + 1$						
$k(x) = -3f(-x)$						

6. The point (2,5) is on the graph of $y = f(x)$. Give the coordinates of one point on the graph of each of the following:

Function	$f(x-4)$	$f(x)-4$	$f(-x)$	$f(4x)$	$f(x+3)-1$	$-0.4f(x)$
Coordinates of Point						

7. Suppose a function $G(x)$ has domain $-4 < x < 6$ and range $-8 < G(x) < 12$. Give the domain and range of each of the following functions.

Function	Domain	Range
$G(x)$	$-4 < x < 6$	$-8 < G(x) < 12$
$H(x) = G(-x)$		
$K(x) = G(2x)$		
$M(x) = 4G(x)$		
$Q(x) = G(x+3) - 1$		