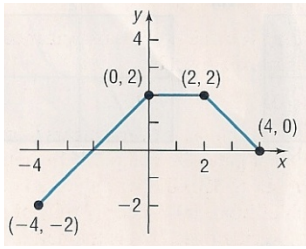


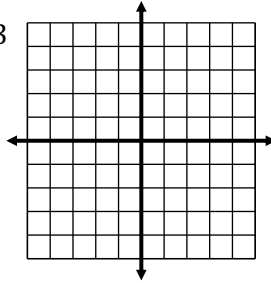
Precal 2.4 & 5 Practice

In problems 1 & 2, the graph of a function is illustrated. Graph the resulting transformations.

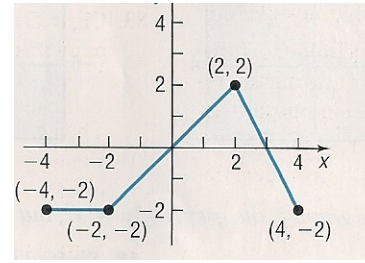
1.



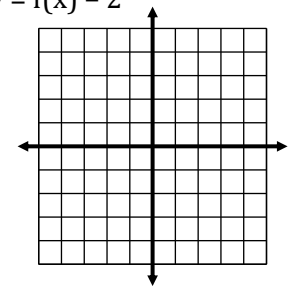
$$y = f(x) + 3$$



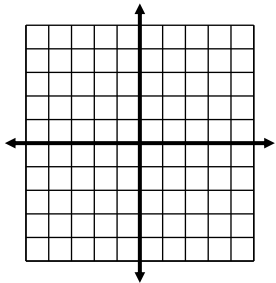
2.



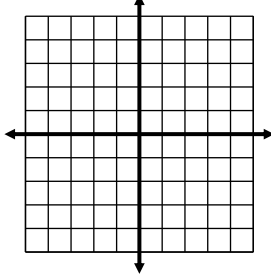
$$y = f(x) - 2$$



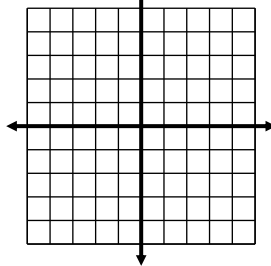
$$y = f(x+1)$$



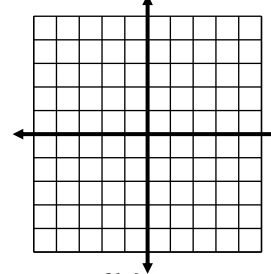
$$y = -f(x)$$



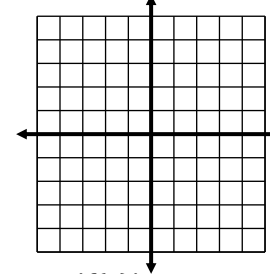
$$y = |f(x)|$$



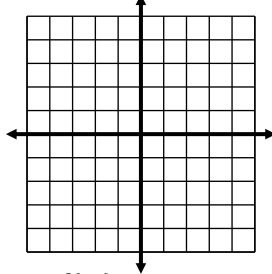
$$y = f(x-2)$$



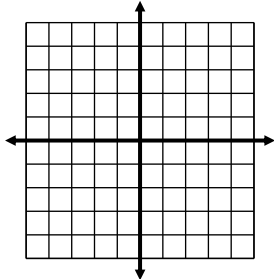
$$y = -2f(x)$$



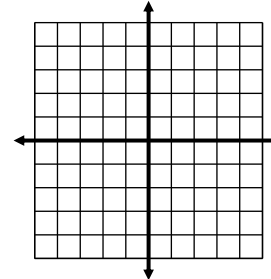
$$y = f(\frac{1}{2}x)$$



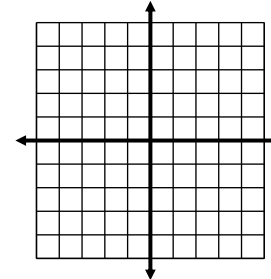
$$y = \frac{1}{2}f(x)$$



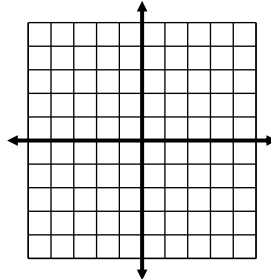
$$y = f(-x)$$



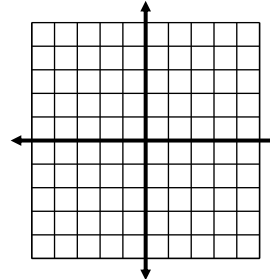
$$y = f(2x)$$



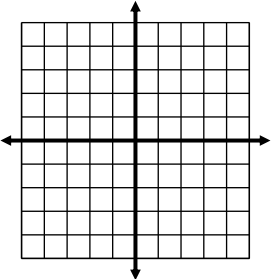
$$y = -f(x)$$



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



$$y = f(-x)$$



3. If (6, 8) is a point on the graph of  $y = f(x)$ , which of the following must be a point on  $y = -f(x)$ ? A) (6, 8) B) (6, -8) C) (-6, 8) D) (-6, -8)

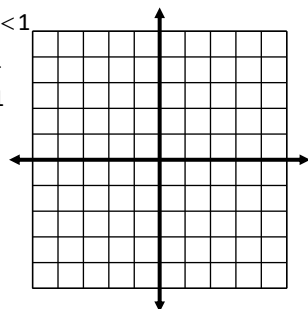
4. If (6, 8) is a point on the graph of  $y = f(x)$ , which of the following must be a point on  $y = f(-x)$ ? A) (6, 8) B) (6, -8) C) (-6, 8) D) (-6, -8)

5. If (6, 8) is a point on the graph of  $y = f(x)$ , which of the following must be a point on  $y = 2f(x)$ ? A) (3, 8) B) (6, 4) C) (12, 8) D) (6, 16)

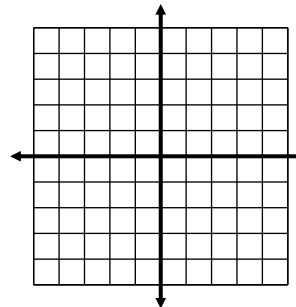
6. If (6, 8) is a point on the graph of  $y = f(x)$ , which of the following must be a point on  $y = \frac{1}{2}f(x)$ ? A) (3, 8) B) (6, 4) C) (12, 8) D) (6, 16)

Graph the following piecewise functions.

$$7. \text{bunny}(x) = \begin{cases} x-3 & \text{if } -2 \leq x < 1 \\ 5 & \text{if } x=1 \\ -x+2 & \text{if } x > 1 \end{cases}$$



$$8. \text{Corgi}(x) = \begin{cases} |x+3| - 4 & \text{if } x \leq 1 \\ 2\sqrt{x} & \text{if } x > 1 \end{cases}$$



$$9. \text{Meg}(x) = \begin{cases} 2x+5 & \text{if } x < 0 \\ -3 & \text{if } 0 \leq x < 2 \\ -\frac{1}{2}x+4 & \text{if } x \geq 2 \end{cases}$$

