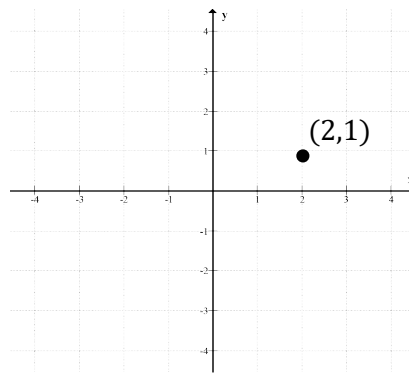


C12 - 1.3 - VHTCER Point/s/Algebra/Factor/Order HW



Point
 $(x, f(x)) = (2, 1)$

Perform the following operations on the point $(x, f(x))$ and state the new point and write in mapping notation. Draw the new point on the graph.

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

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

$$2y + 6 = f(x)$$

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

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

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

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

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

$$y = f^{-1}(x) + 1$$

$$y = f^{-1}\left(\frac{1}{2}x\right)$$

$$y = |f^{-1}(x - 2)|$$

$$\frac{1}{3}y = f(2(x + 1)) - 2$$

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

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

C12 - 1.3 - VHTCER Function Notation $f(x)$ HW

Solve

$$f(x) = x^2$$

$$f(-4) =$$

$$f(2) + 1 =$$

Find the new equation of $@(x)$; a transformation of $f(x)$.

$$k(x) = -2f(x) - 3$$

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

$$p(x) = f(-3x - 6)$$

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

$$\frac{1}{2}(q(x) + 4) = f(-2x + 2)$$

C12 - 1.3 - VHTCER $y=$ HW

Find the new equation.

$$y = x^2 + x$$

A Horizontal Reflection
A vertical expansion by a factor of 2
A vertical translation up 1
A horizontal translation left 5

$$y = 4x^3 - 2x$$

A Vertical Reflection
A vertical compression by a factor of $\frac{1}{2}$
A vertical translation up 1
A horizontal translation left 5

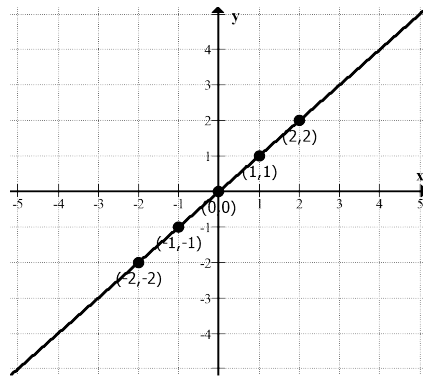
$$y = \sqrt{x}$$

A horizontal expansion by a factor of 2 and
A Horizontal reflection
A vertical translation up 1
A horizontal translation right 5

$$y = |x|$$

A horizontal compression by a factor of $\frac{1}{2}$ and
A vertical reflection
A vertical translation down 3
A horizontal translation left 3

C12 - 1.3 - VHTCER Graphs $y = HW$



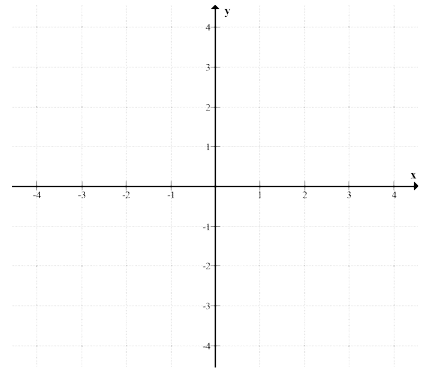
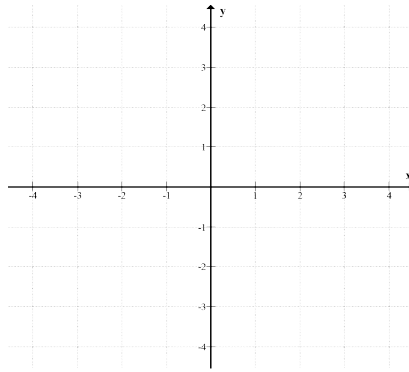
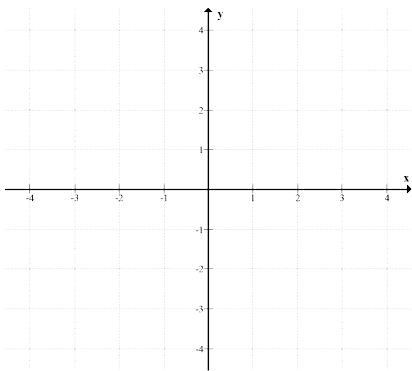
$$y = f(x)$$

Perform the following operations on the graph $f(x)$ and draw the new graph.

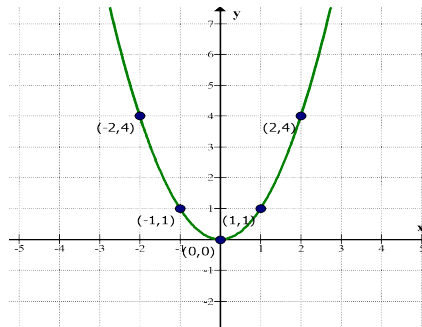
$$y - 1 = 2f(x)$$

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

$$2y = g(2x)$$



Perform the following operations on the graph $g(x)$ and draw the new graph.

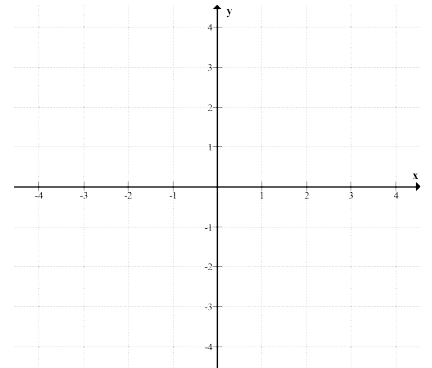
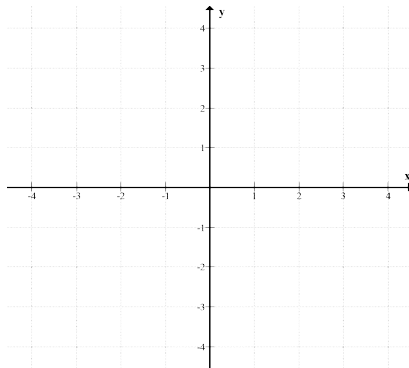
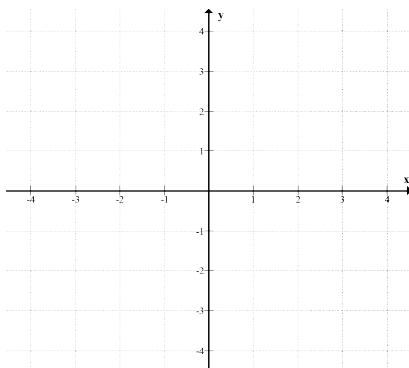


$$y = x^2$$

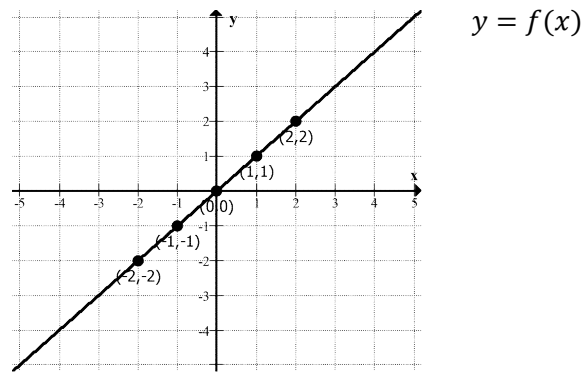
$$2y = x^2 + 6$$

$$y = (2x + 2)^2$$

$$-y = g(x)$$



C12 - 1.3 - VHTCER Graphs $y = HW$

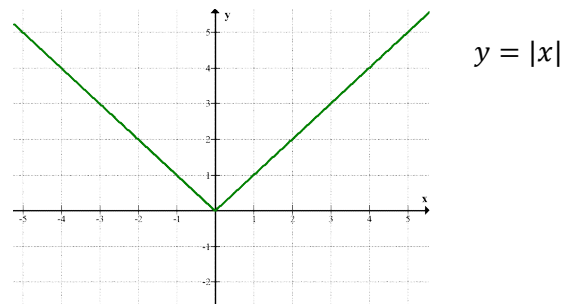
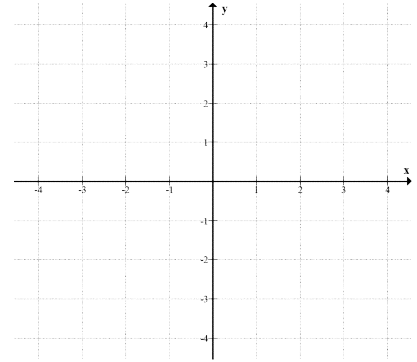
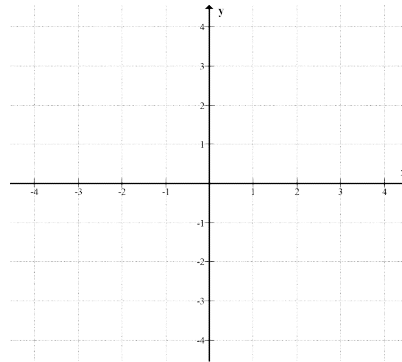
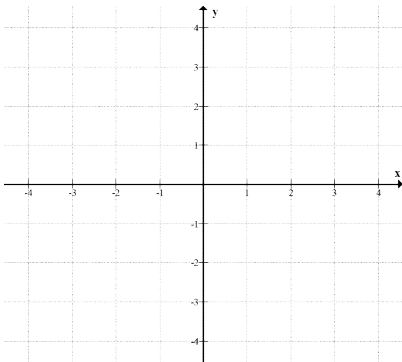


Perform the following operations on the graph $f(x)$ and draw the new graph.

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

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

$$2y = g(2x)$$

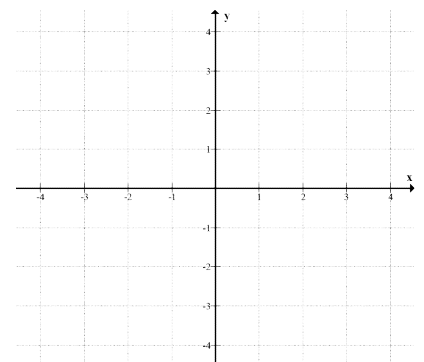
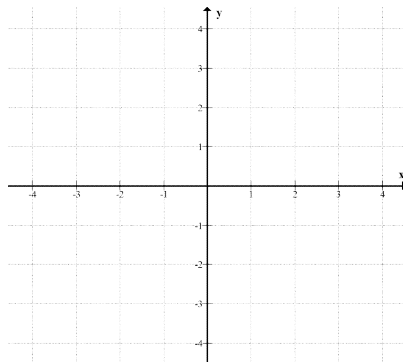
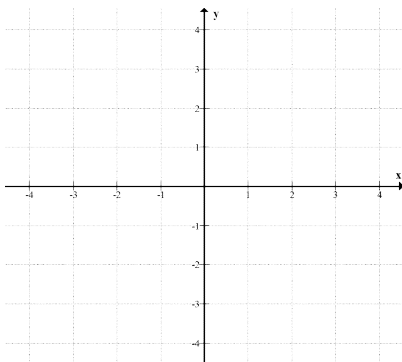


Perform the following operations on the graph $g(x)$ and draw the new graph.

$$2y = |x| + 4$$

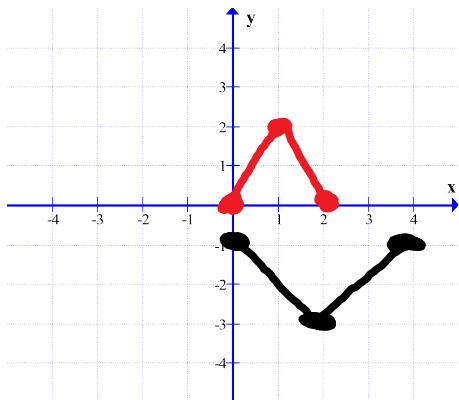
$$y = |2x + 4|$$

$$-y = |x|$$



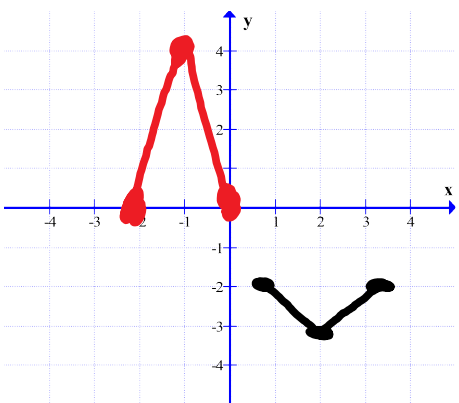
C12 - 1.3 - VHTCER Graph $f(x)$ HW

Find the transformed equation. Multiple Solutions



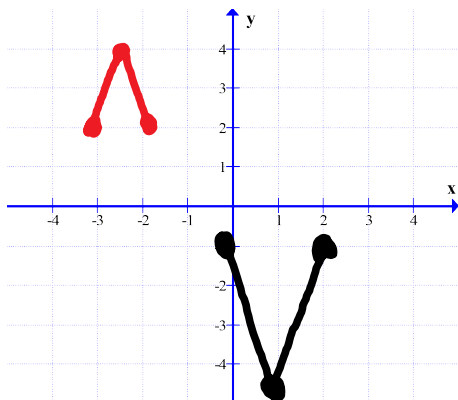
$$y = f(x)$$

$$y = af(b(x - h)) + k$$



$$y = f(x)$$

$$y = af(b(x - h)) + k$$



$$y = f(x)$$

$$y = af(b(x - h)) + k$$