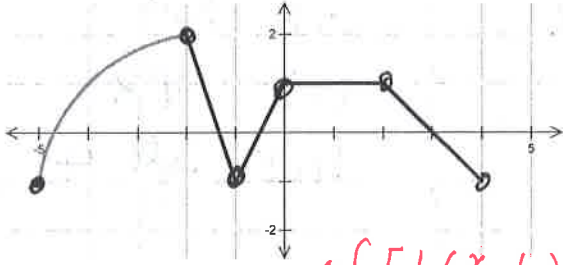


1. Original Function of a(x).



$a f [b(x-h)] + k$

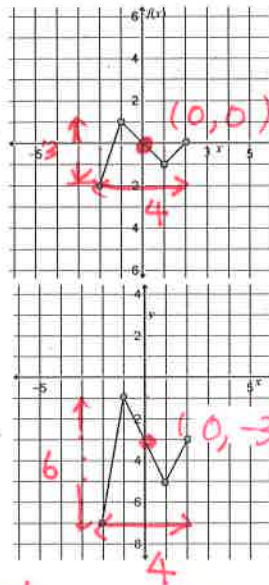
Graph $b(x) = \frac{1}{2} a(-\frac{1}{2}x + 1) - 1$ on the same axis.

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

List transformation:

- (V.D: BOFO $\frac{1}{2}$)
- (H.D: BOFO 2)
- (Reflection over y axis)
- (H. Shift 2 Right)
- (V. Shift 1 down.)

$x' \in x$	y	$\Rightarrow y'$
12	-5	-1
6	-2	2
4	-1	-1
2	0	1
-2	2	1
-6	4	-1



2. Original Function of f(x).

Write the equations of g(x) in terms of f(x).

V.D: BOFO 2

V.T: Down 3

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

Write the equation of k(x) in terms of f(x)

H.D: BOFO 3

Reflection over x-axis

$k(x) = -f(\frac{1}{3}x)$

3. Write the equation of the function k(x) whose graph can be obtained from $f(x) = 6^x$ by reflected across x-axis, a horizontal dilation by a factor of 3, translating right 7, and translating down 8.

$k(x) = -6^{\frac{1}{3}(x-7)} - 8$

4. Given that (5, -2) is a point on the graph of $y = f(x)$, find the coordinates of the point that it moves to under the transformation $y = -f(\frac{1}{2}(x+3)) + 1$.

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

List

- Ref. over x-axis
- H.D BOFO 2
- H.T Left 3
- V.T up 1

$2x-3 \in x$	y	\Rightarrow	$-y + 1$
7	5	-2	3

(7, 3)