

Check-in Quiz Section 2.4: Transformations

Complete the following questions SHOWING ALL WORK and steps where applicable.

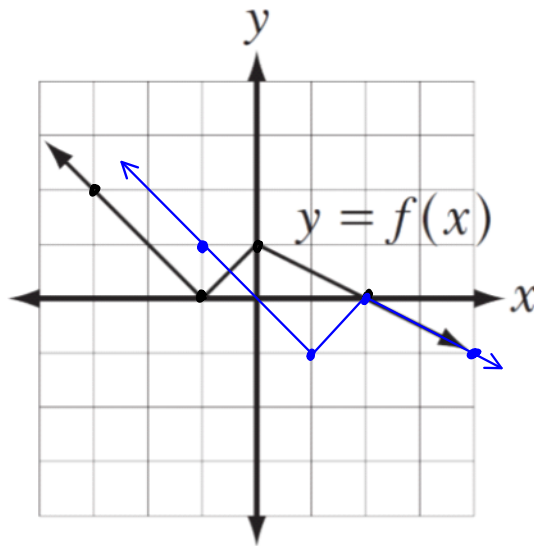
1. Given the graph of $y = f(x)$,
- a) Describe (in words) the transformation that can be applied to the graph of $y = f(x)$ to obtain the graph of the transformed function, $y = f(x-2) - 1$. (1 mark)

2 right *1 down*

- b) Sketch the graph of the transformed function. Show your work in the tables of values provided:

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

(2 marks)



$y = f(x)$	
x	y
-3	2
-1	0
0	1
2	0

$y = f(x-2) - 1$	
$x+2$	$y-1$
-1	1
1	-1
2	0
4	-1

2. Graph the following function and answer the questions below:

$$y = 2\sqrt{-x}$$

a) Describe/list the transformations on the base function.

VE of 2
ref. over y-axis

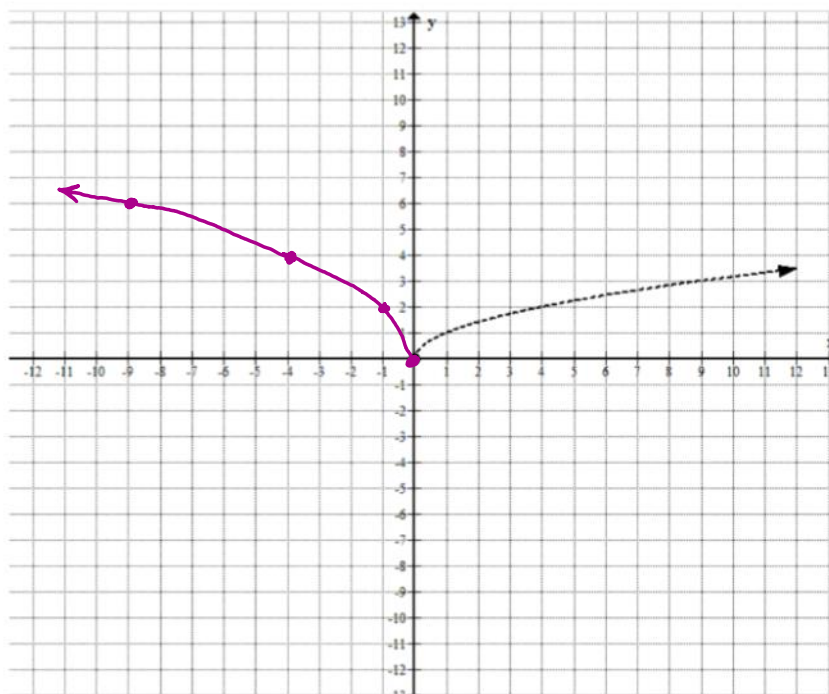
(1 mark)

b) Sketch the graph of the transformed function. Show mapping notation. The base function is shown ($y = \sqrt{x}$)

(2 marks)

x	y
0	0
1	1
4	2
9	3

-x	2y
0	0
-1	2
-4	4
-9	6



c) Determine the domain and range of the transformed function (write in set notation).

(1 mark)

$\{x \mid x \leq 0, x \in \mathbb{R}\}$
 $\{y \mid y \geq 0, y \in \mathbb{R}\}$