

13. Let  $f(x) = x^2$  and  $g(x) = -2(x-3)^2 + 10$ .

What transformation can be used to get the graph of  $g(x)$  from the graph of  $f(x)$ ?

14. Use the graph of  $f(x)$  to graph  $g(x) = 3f(-2x)$

vertical stretching (every y-coord. is multiplied by 3)

3

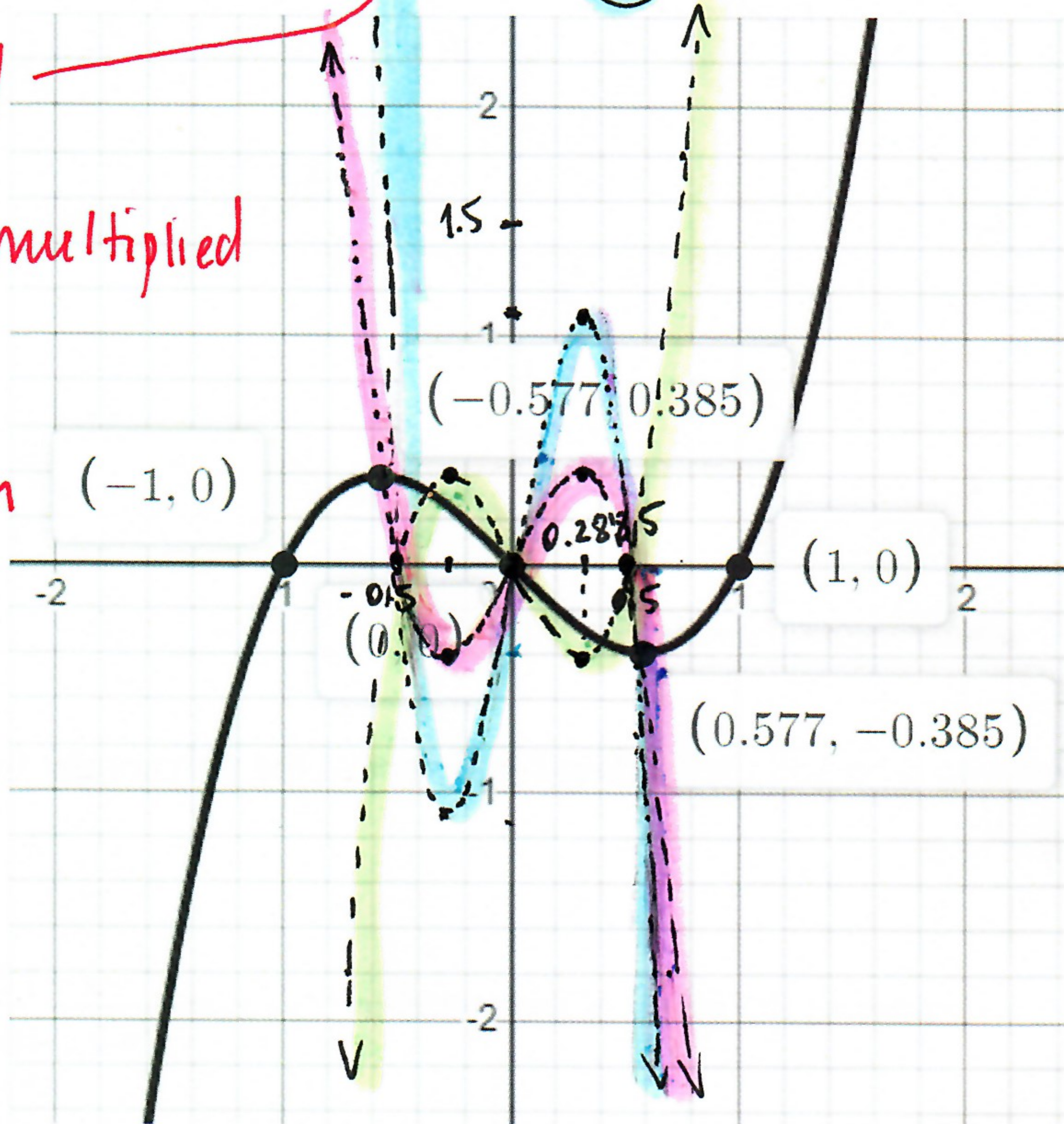
1

horizontal shrinking / compression:

every x-coord. is multiplied by  $\frac{1}{2}$

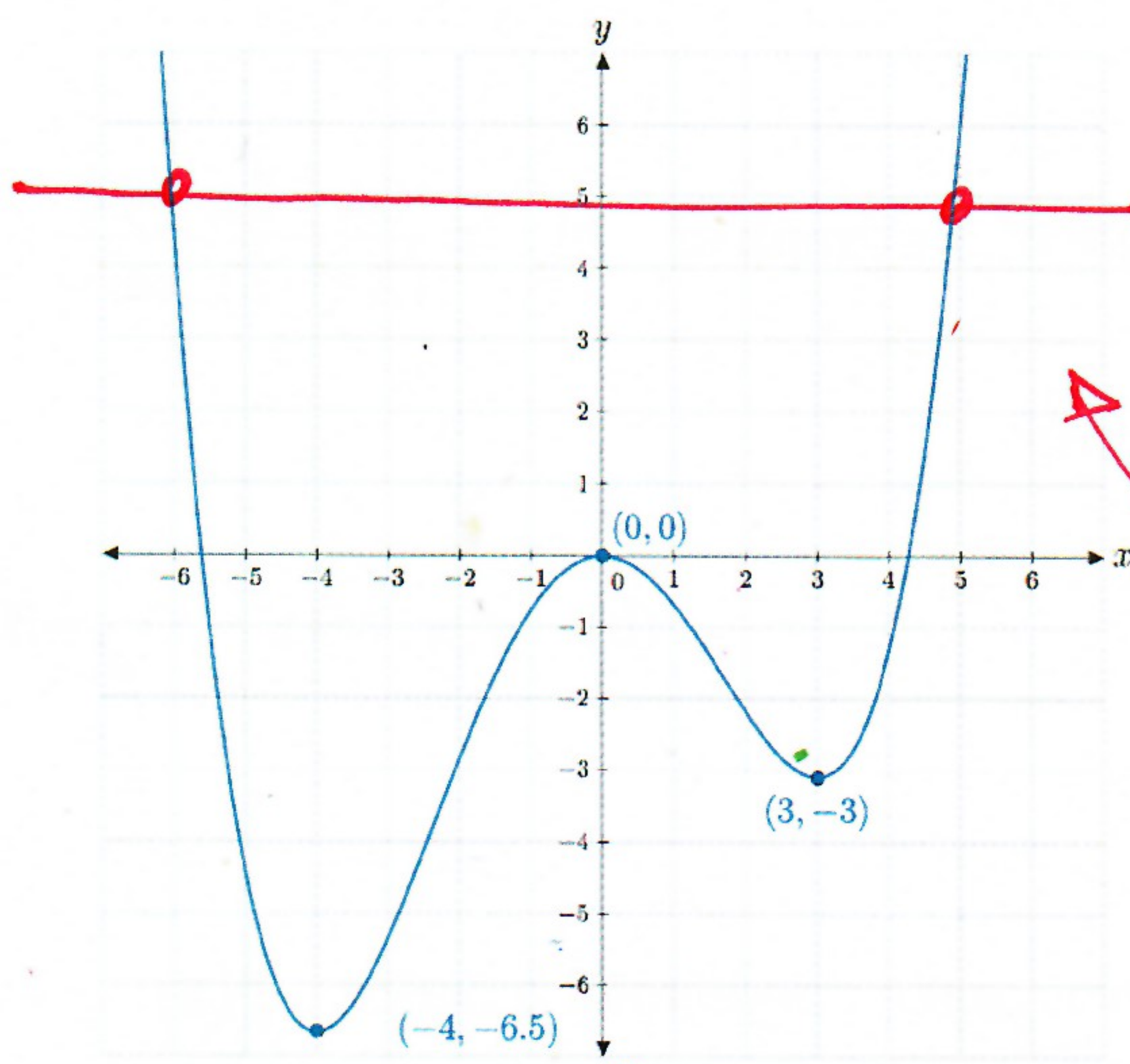
2

horizontal reflection (about y-axis)



15. Check if  $f(x) = \frac{2}{x-5}$  and  $g(x) = \frac{2}{x} + 5$  are inverse functions.

16. The function is given by its graph. Does it have an inverse?



no, it does not because the horizontal line test failed:

that horizontal line has 2 intersections with the graph