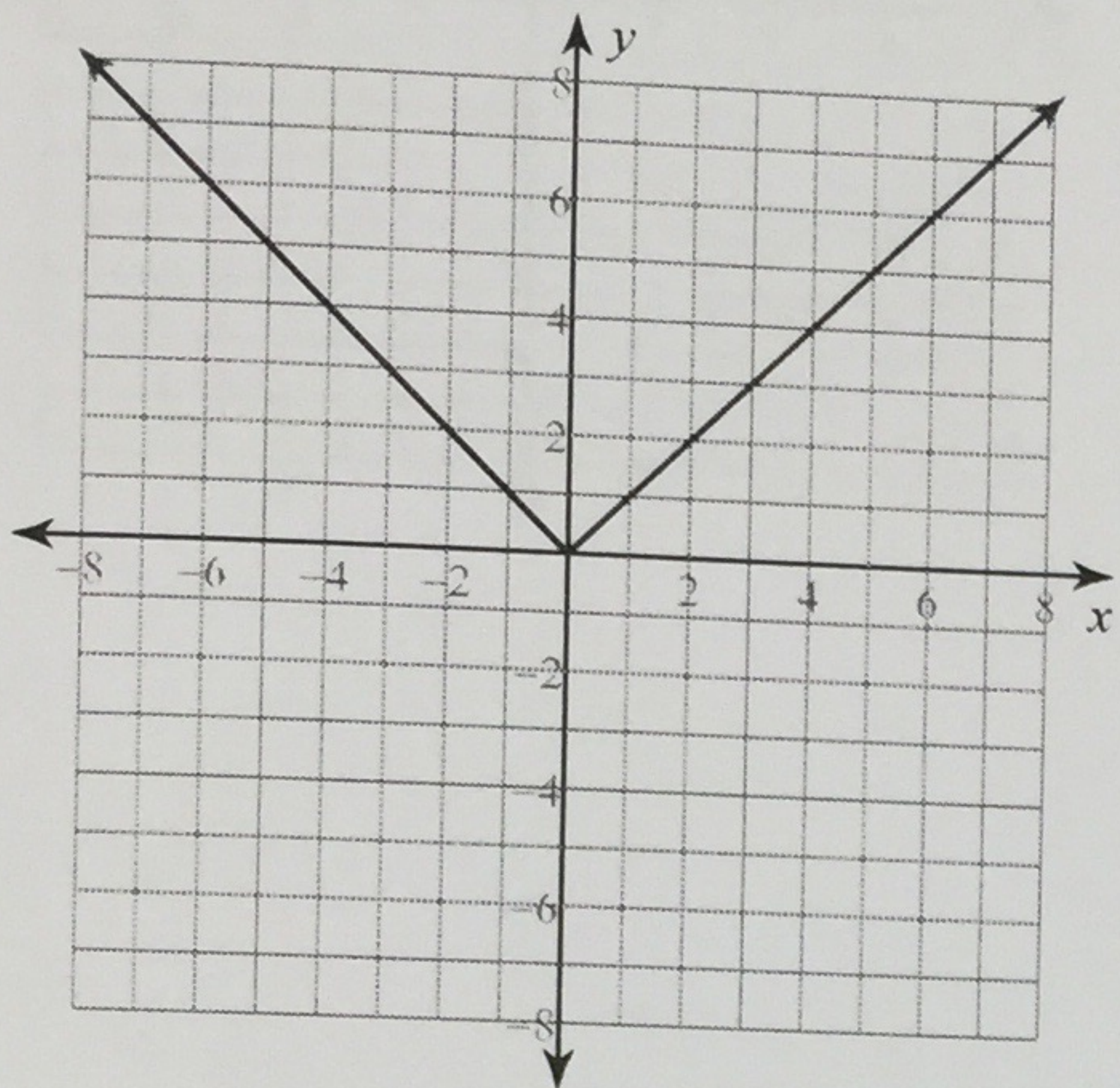


Graphing Practice

Graph each equation. Make a table of values to help you. Compare each to the parent function and describe the transformations.

PARENT GRAPH OF: $y = |x|$

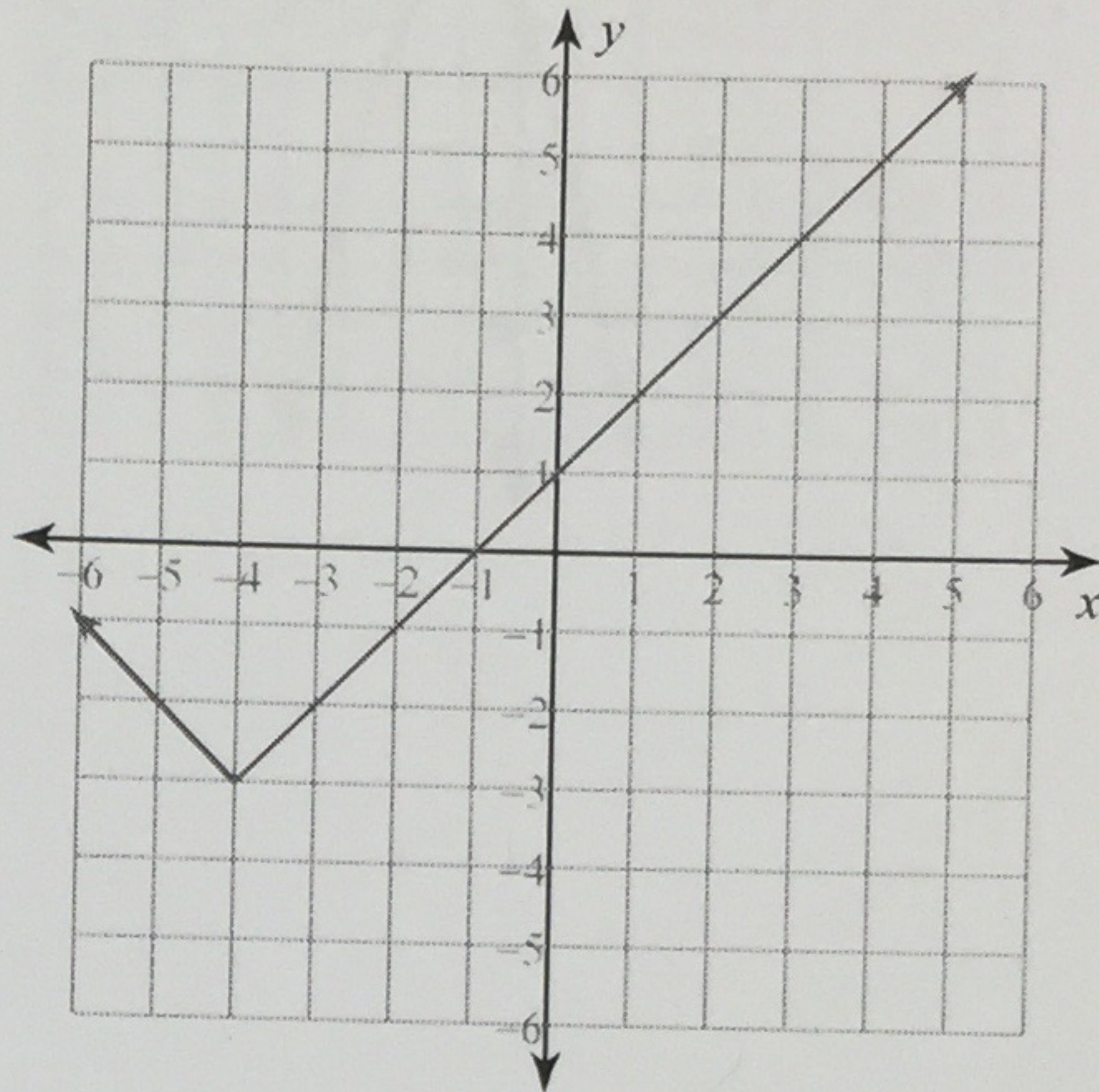
1)



2) $y = |x + 4| - 3$

shift down 3

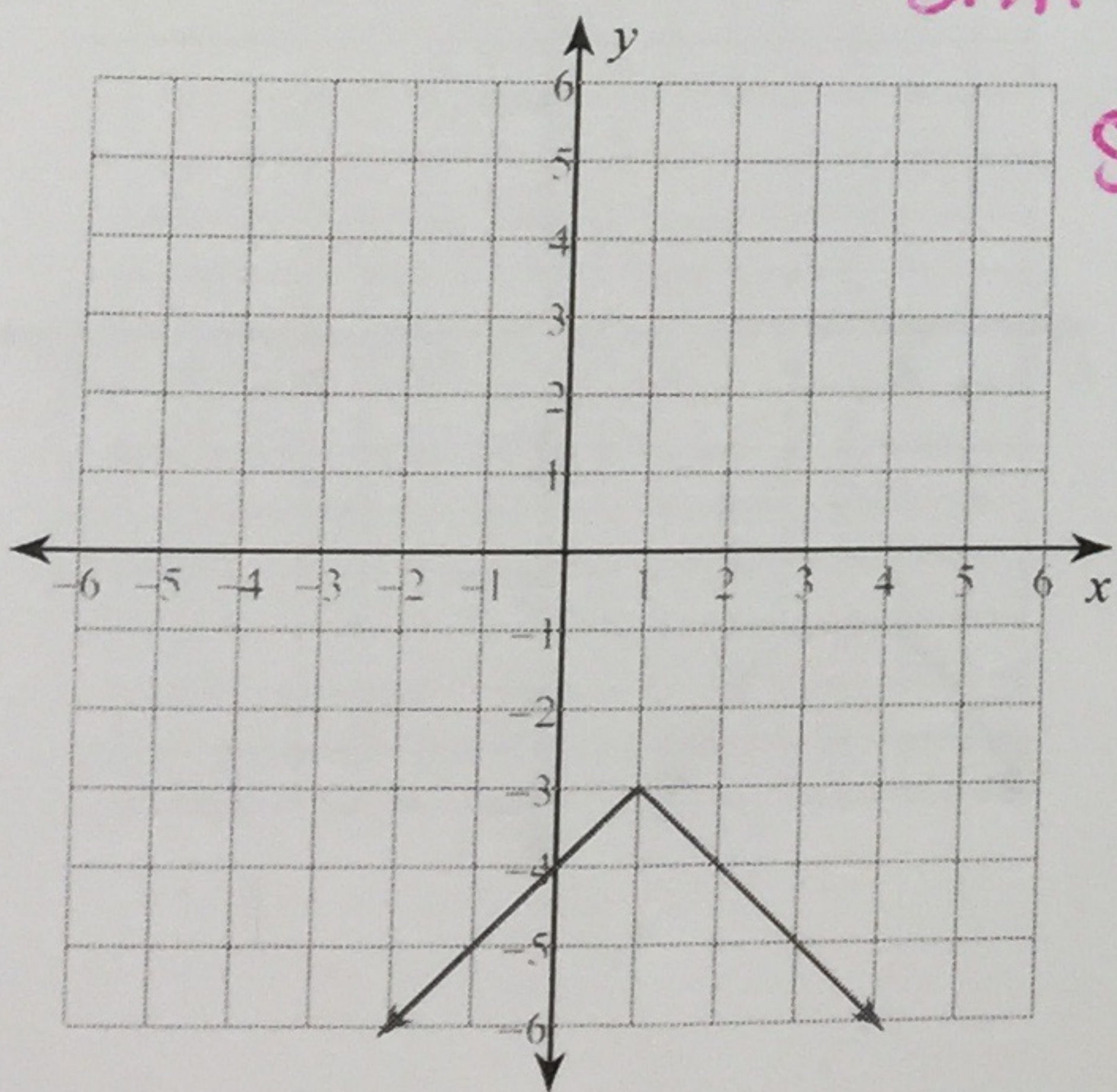
shift left 4



3) $y = -|x - 1| - 3$

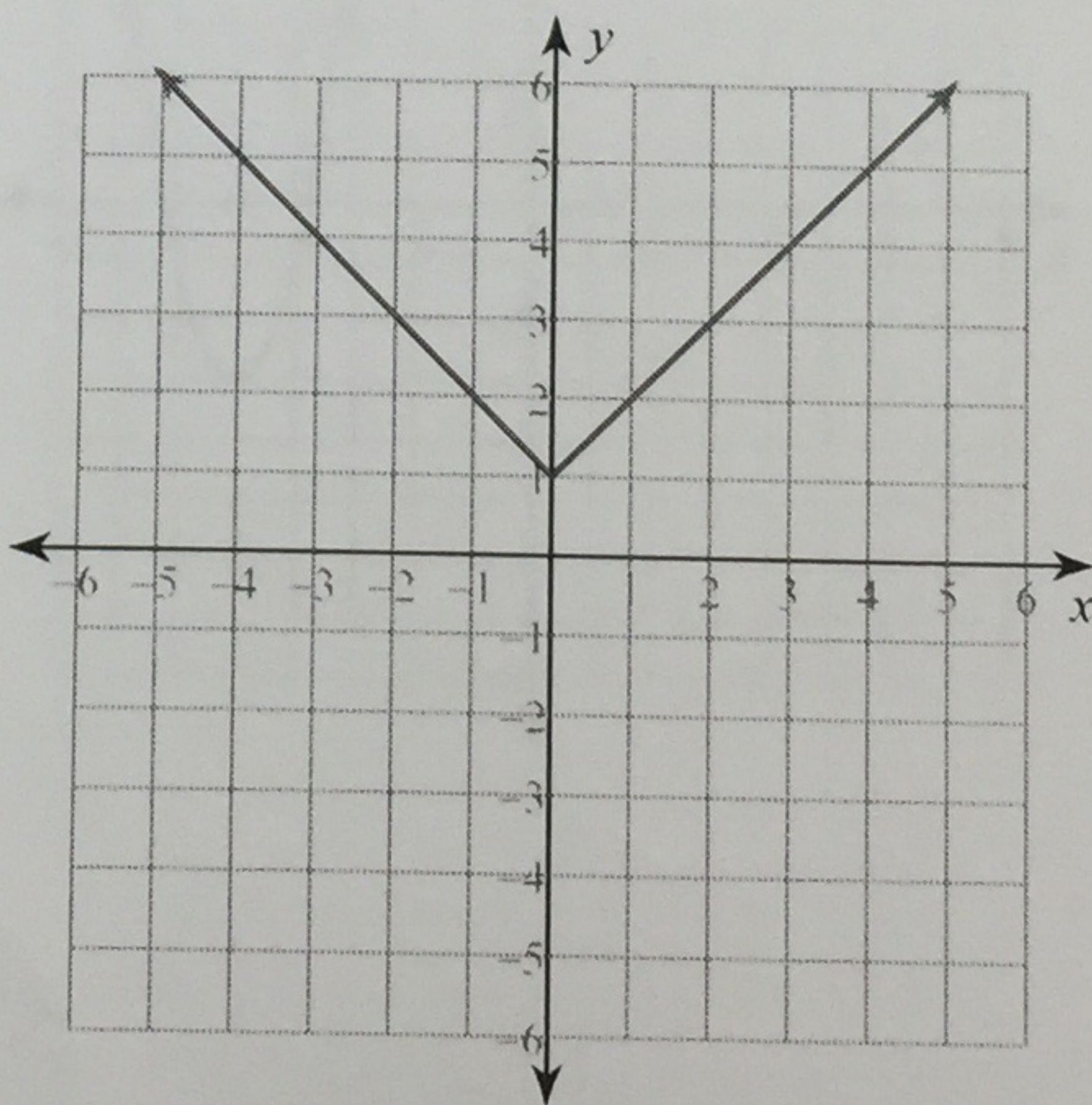
reflection
shift right 1

shift down 3



4) $y = |x| + 1$

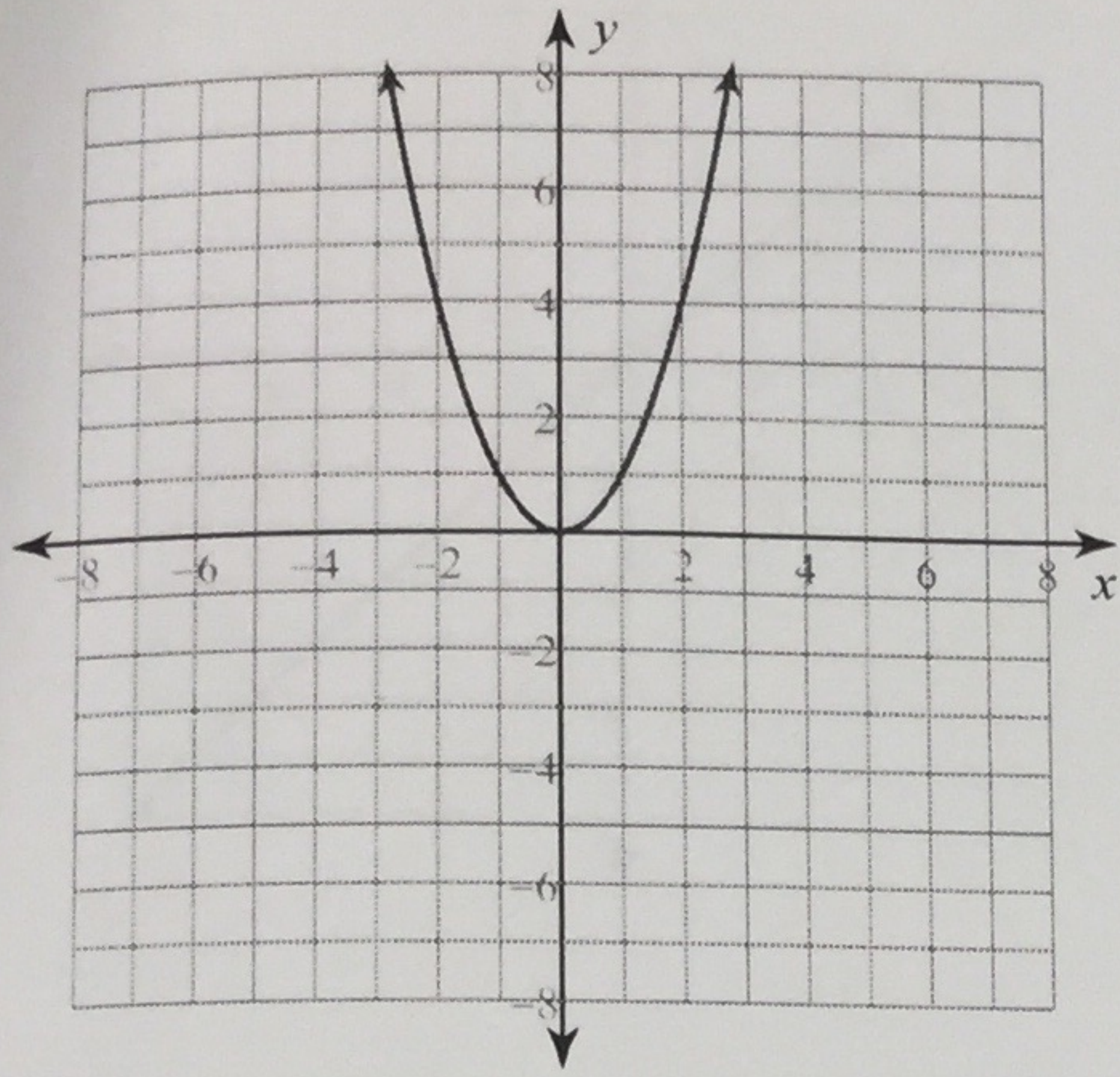
shift up 1



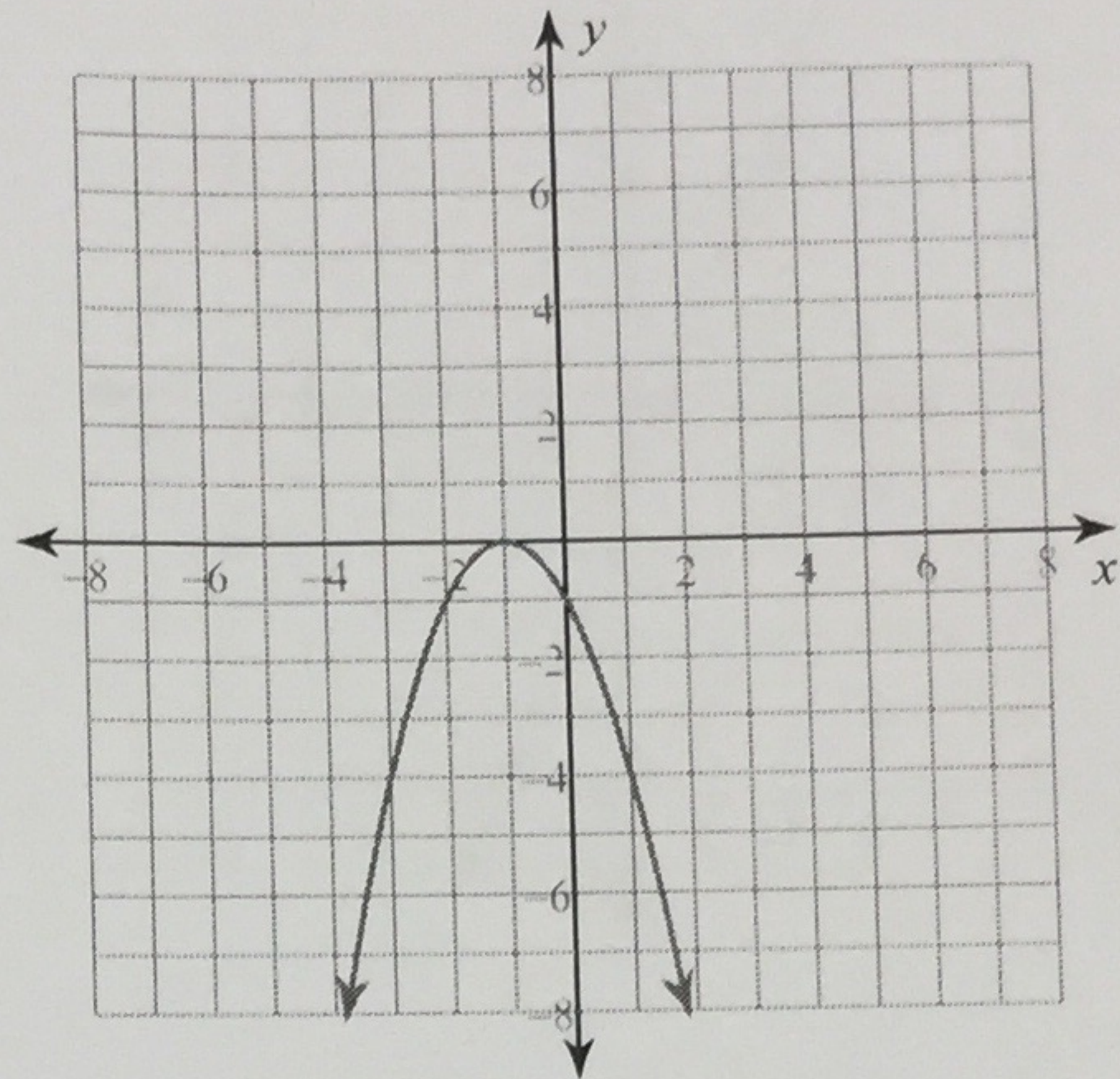
★ just check graphs - we will discuss transformations tomorrow

PARENT GRAPH OF: $y=x^2$

5)



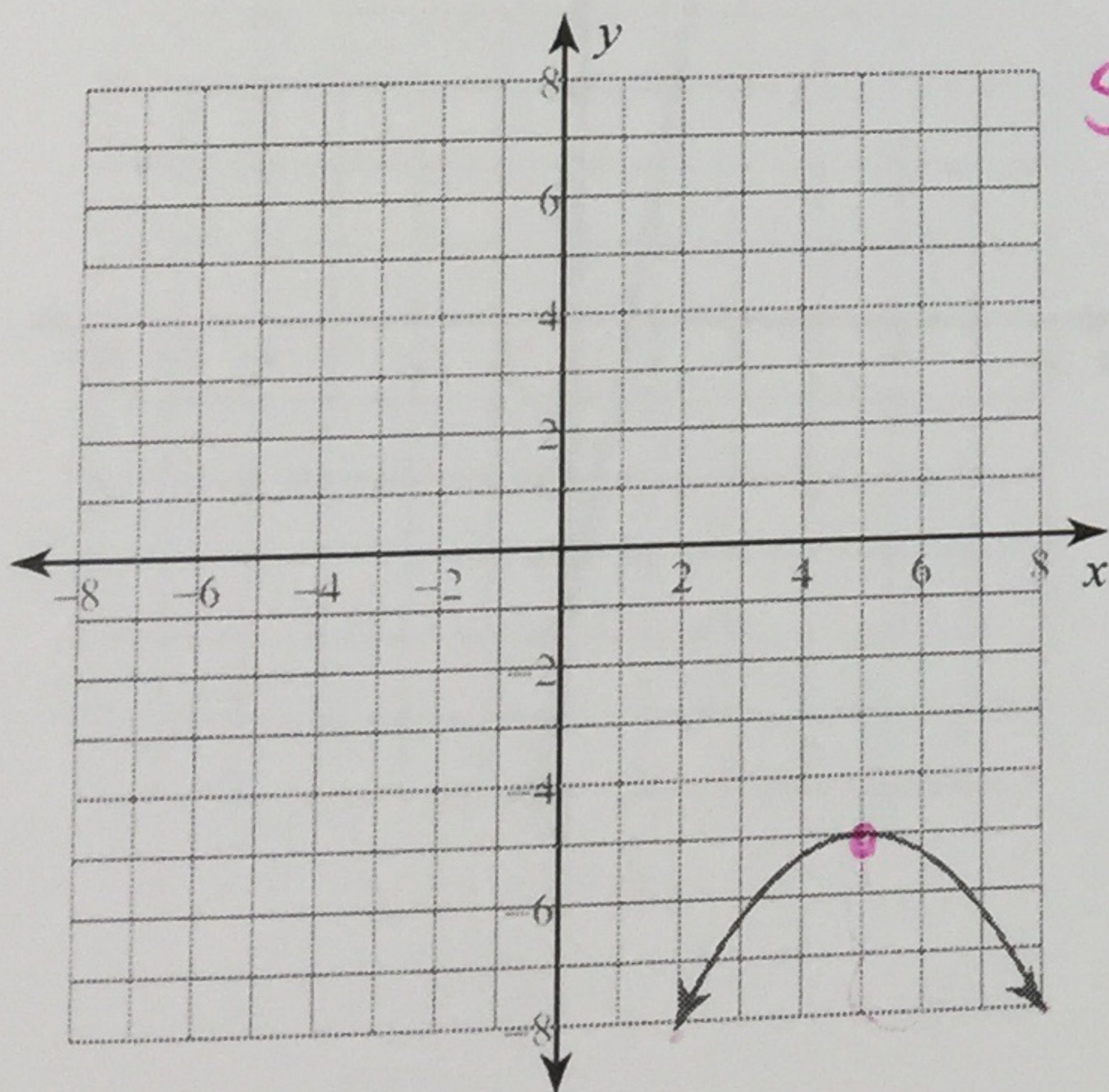
6) $y = -x^2 - 2x - 1$



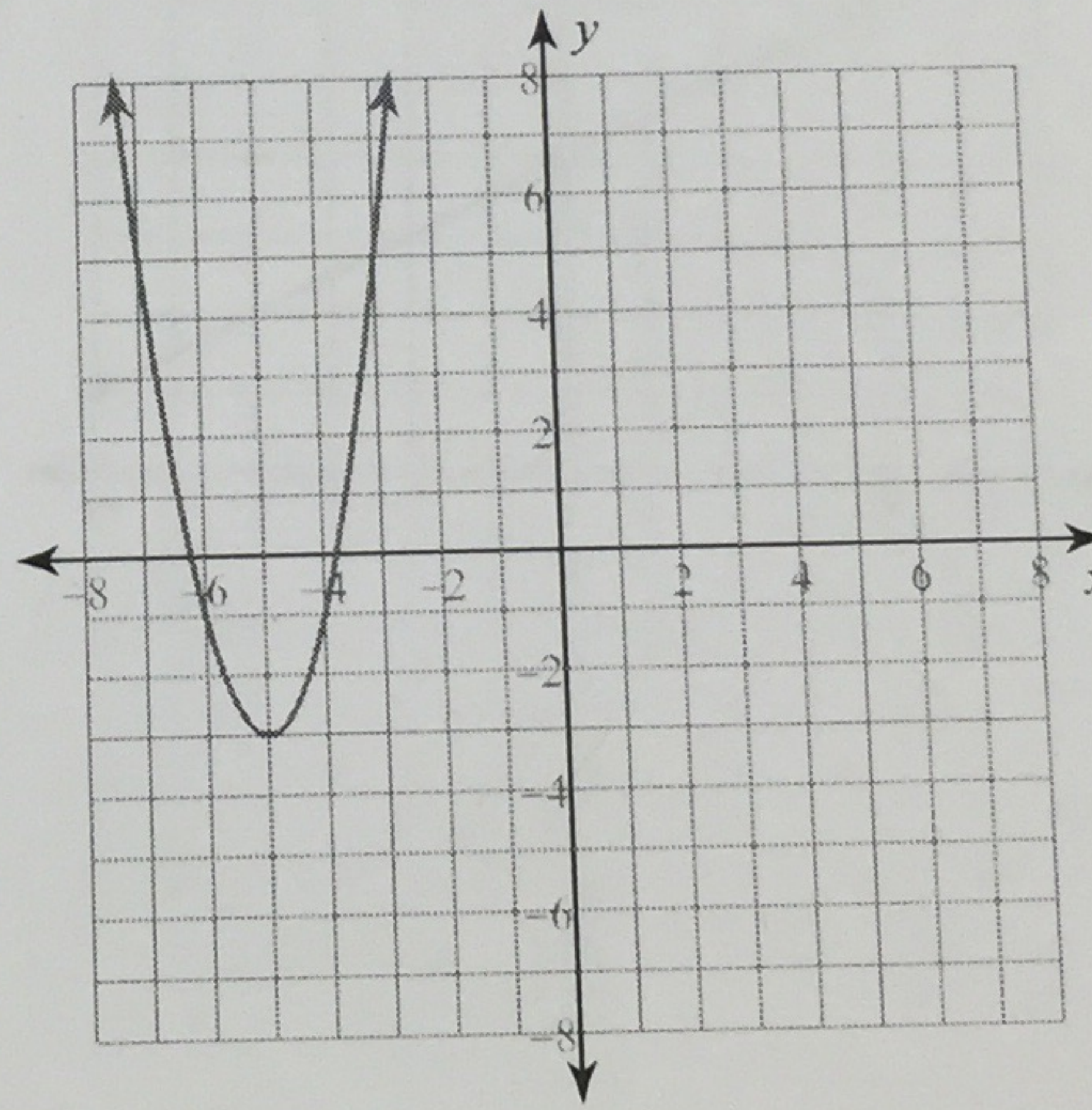
reflection
shift left 1

7) $y = -\frac{1}{3}x^2 + \frac{10}{3}x - \frac{40}{3}$

reflection
shift down 5
shift right 5



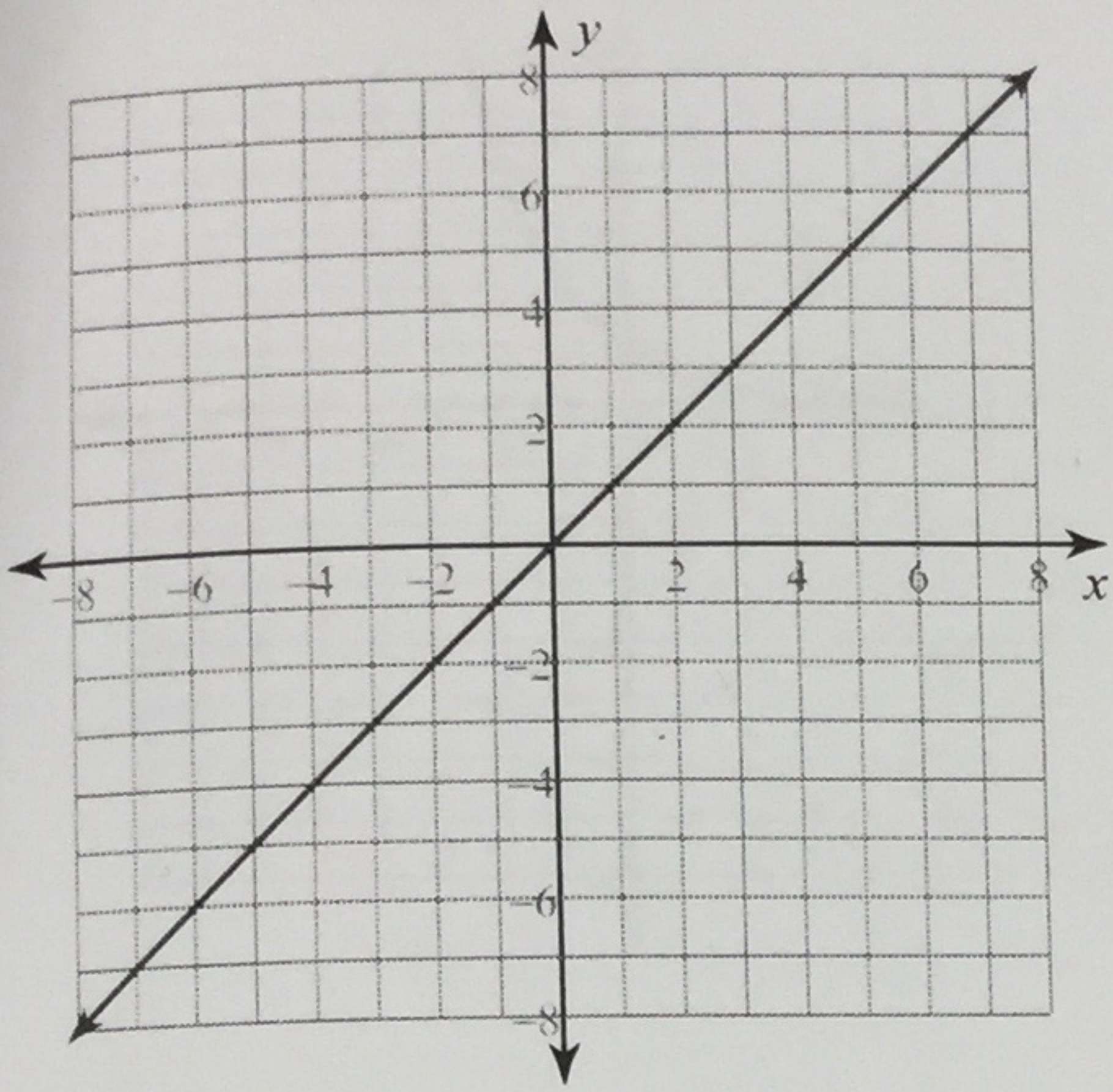
8) $y = 2x^2 + 20x + 47$



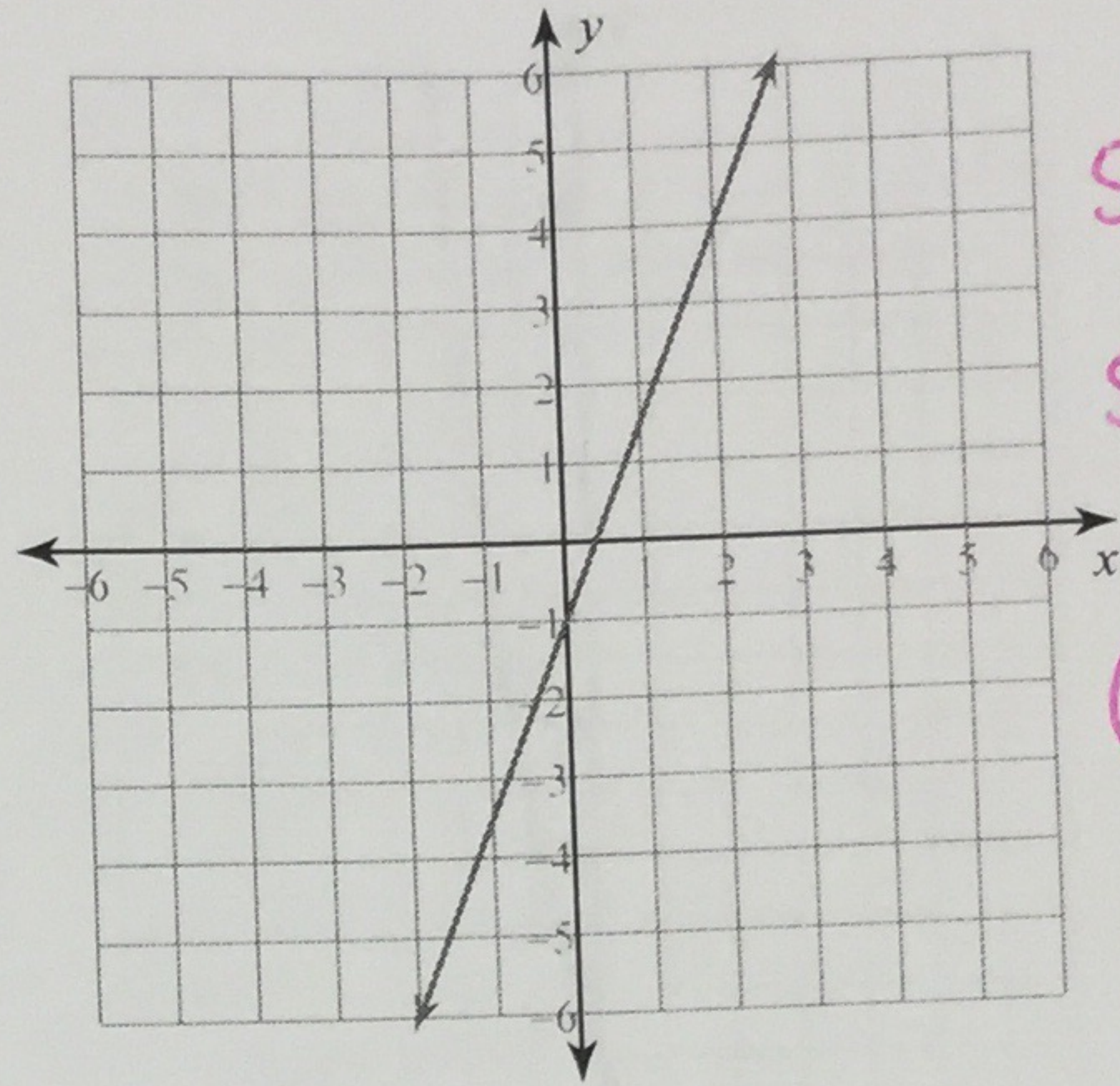
shift left 5
shift down 3
slope = 2
instead of 1
(stretch)

PARENT GRAPH OF: $y = x$

9)

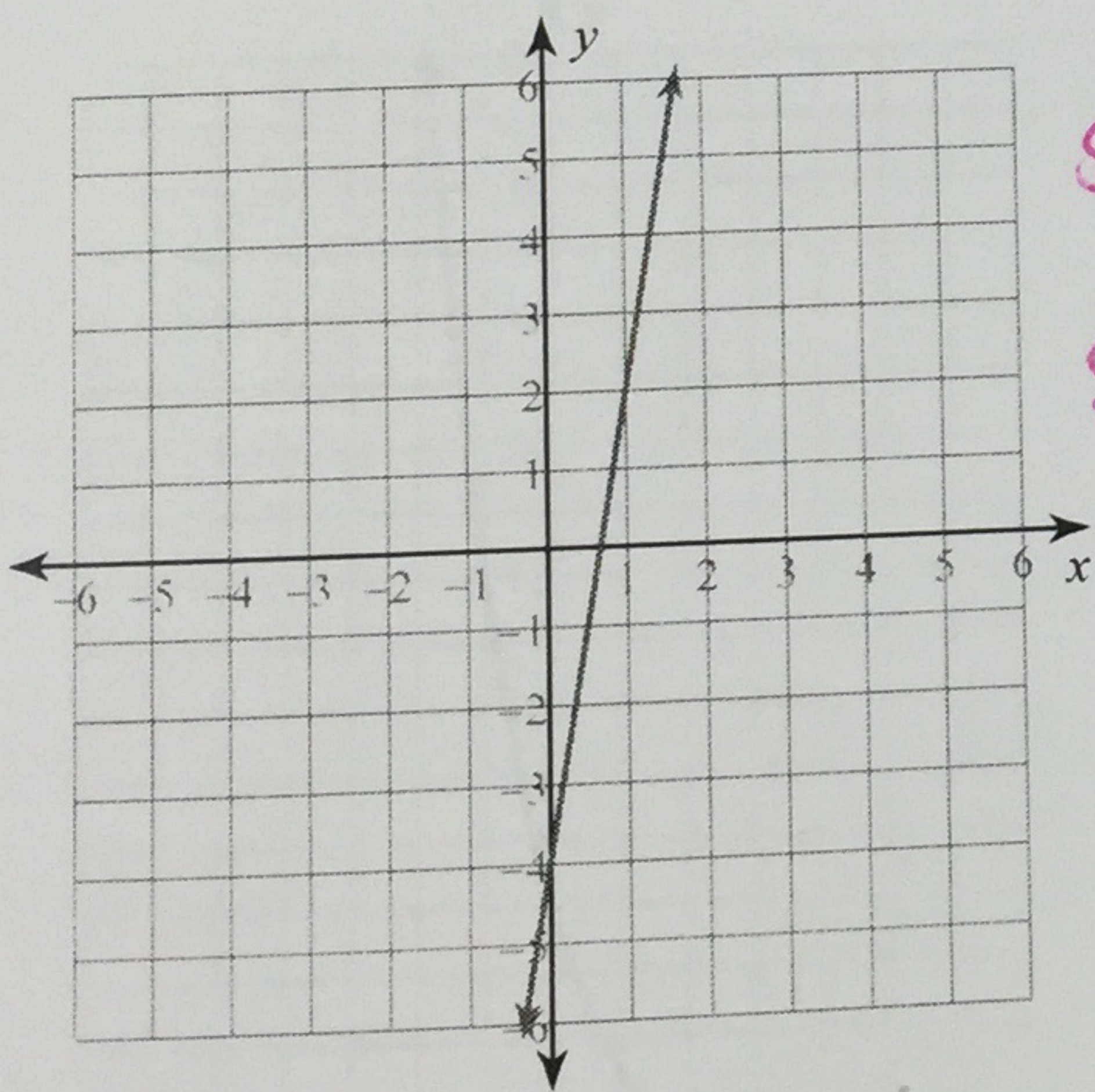


10) $5x - 2y = 2$



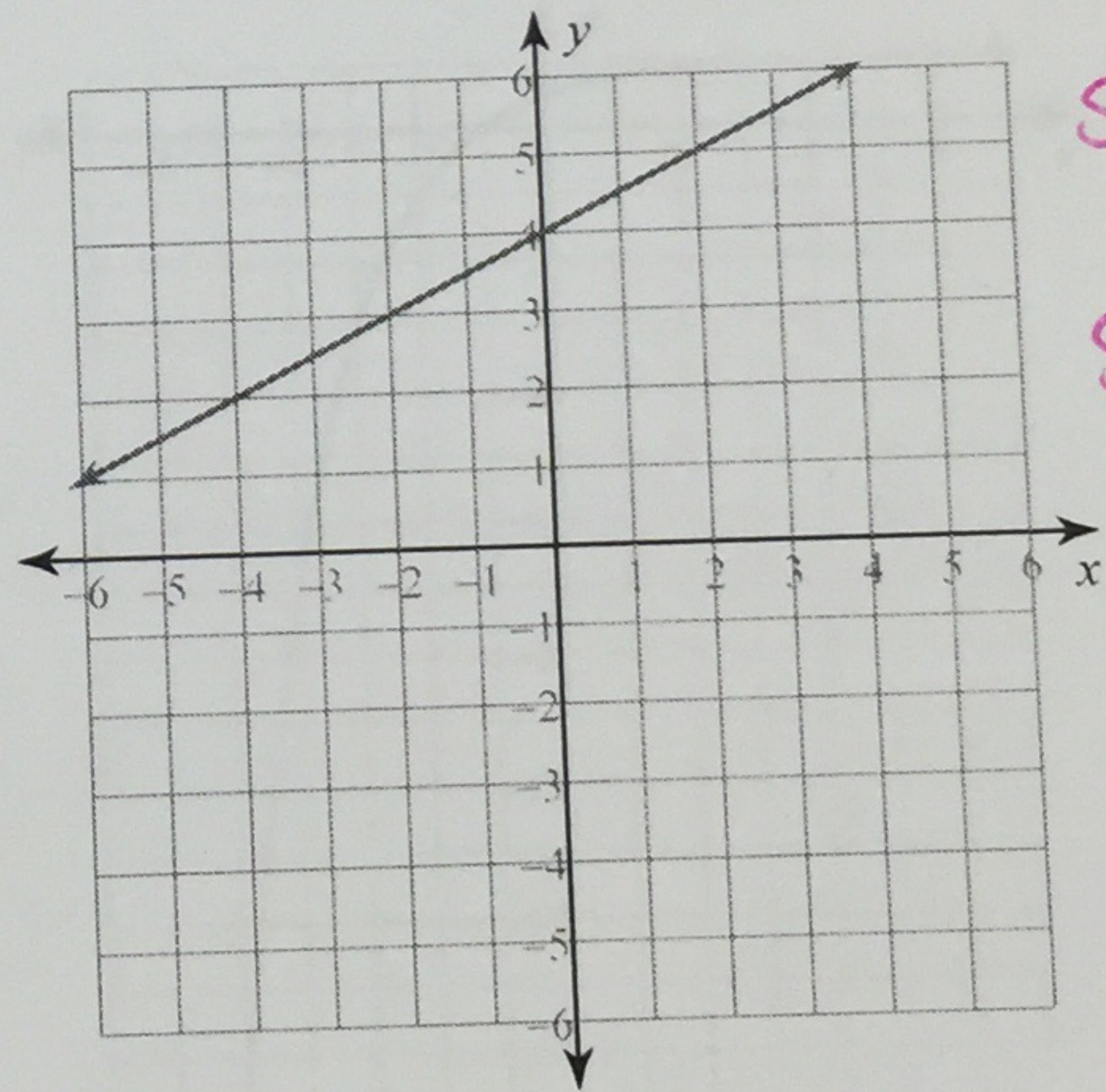
Shift down 1
Slope = $\frac{5}{2}$
(stretch)

11) $6x - y = 4$



Shift down 4
Slope = 6
(stretch)

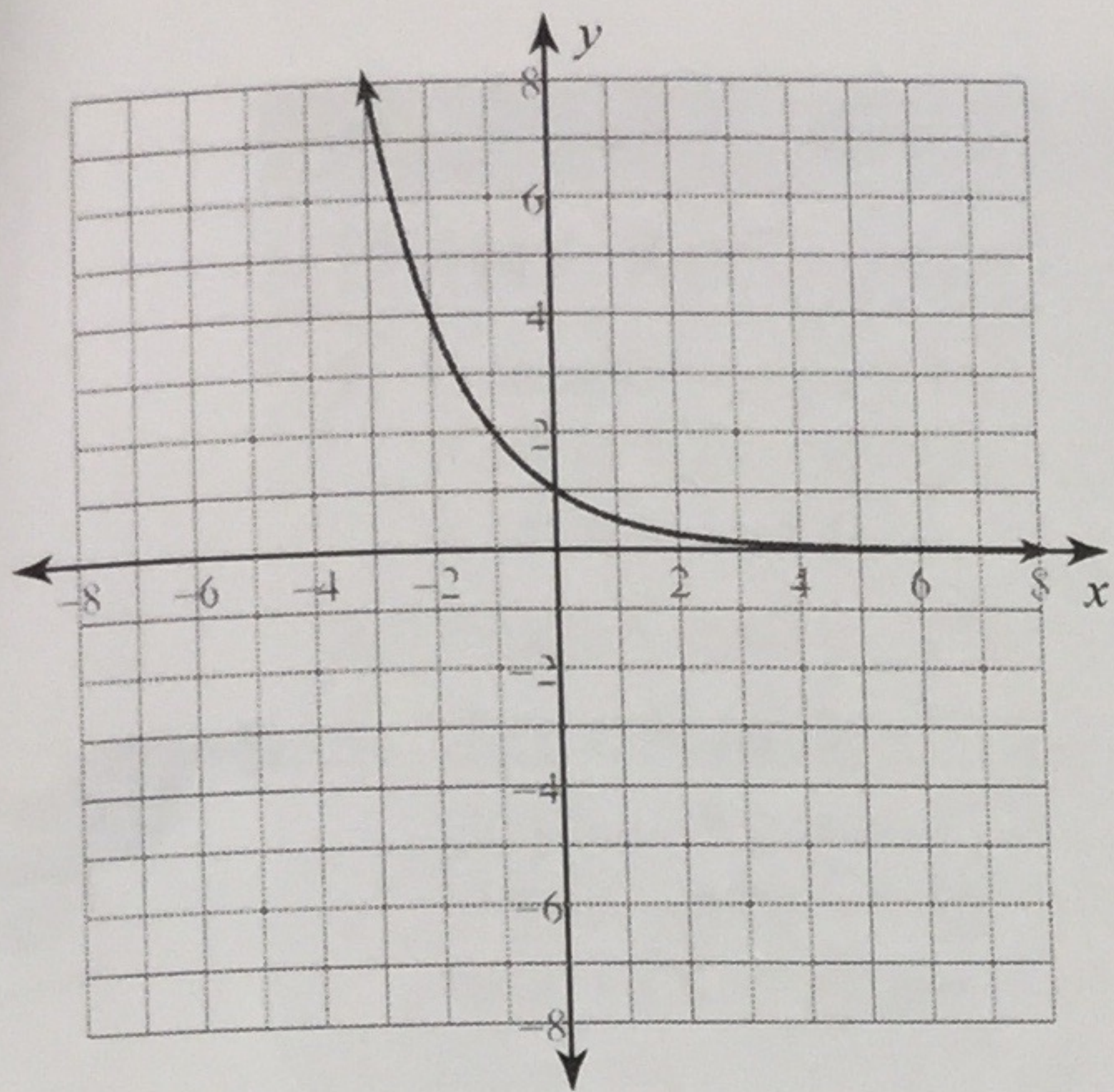
12) $x - 2y = -8$



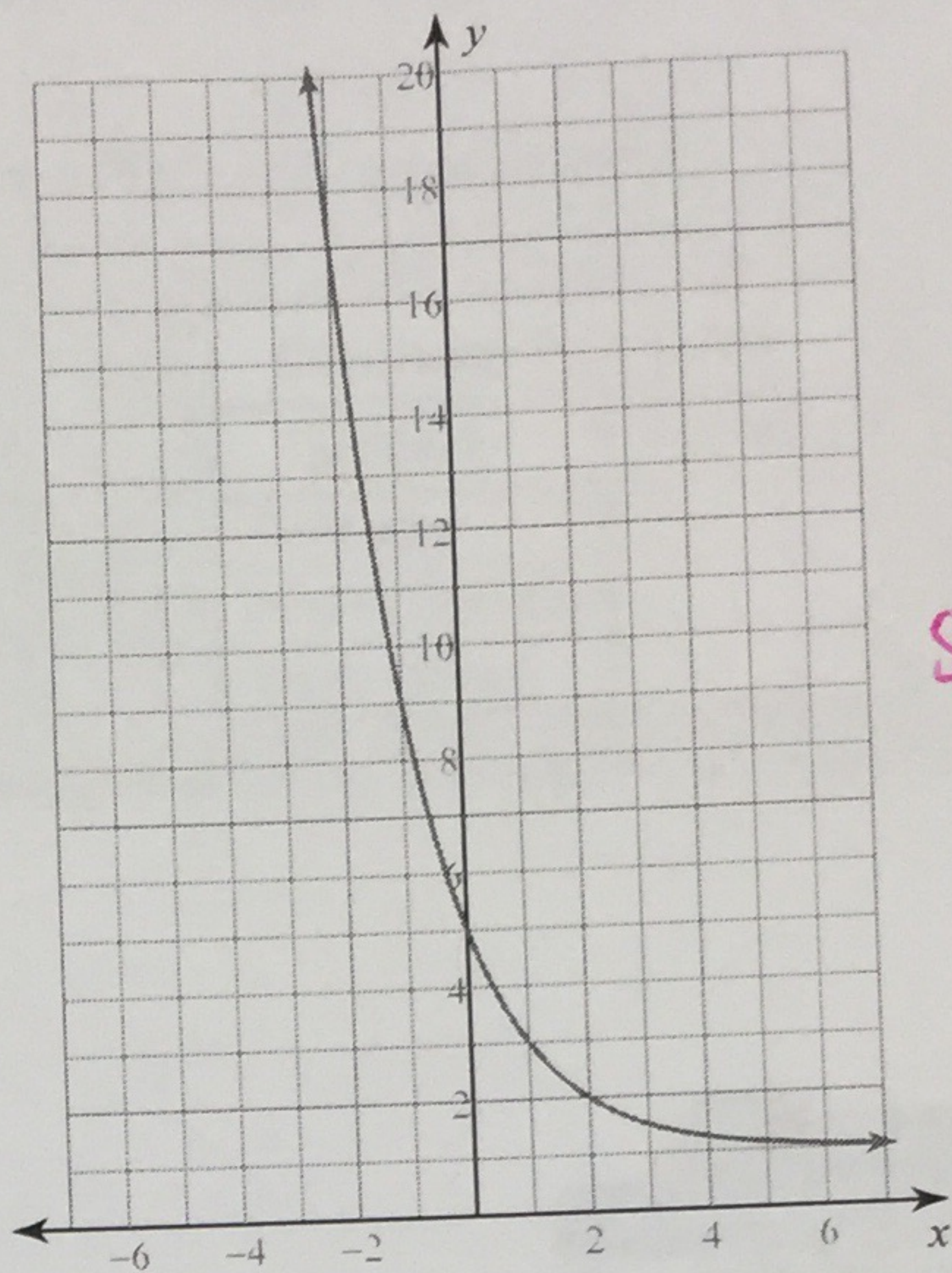
Shift up 4
Slope = $\frac{1}{2}$
(shrink / compression)

PARENT GRAPH OF: $y = (1/2)^x$

13)

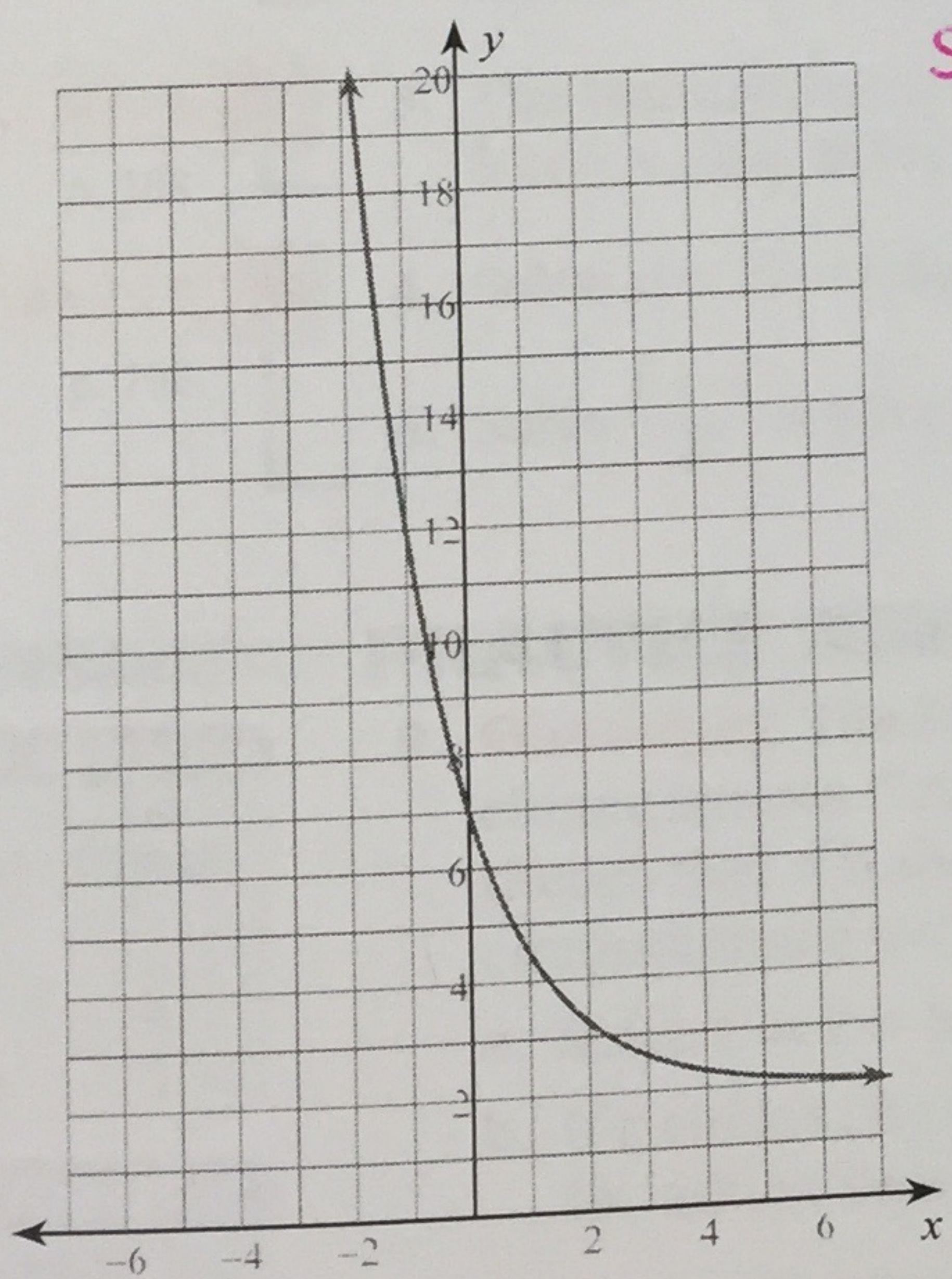


14) $y = 4 \cdot \left(\frac{1}{2}\right)^x + 1$



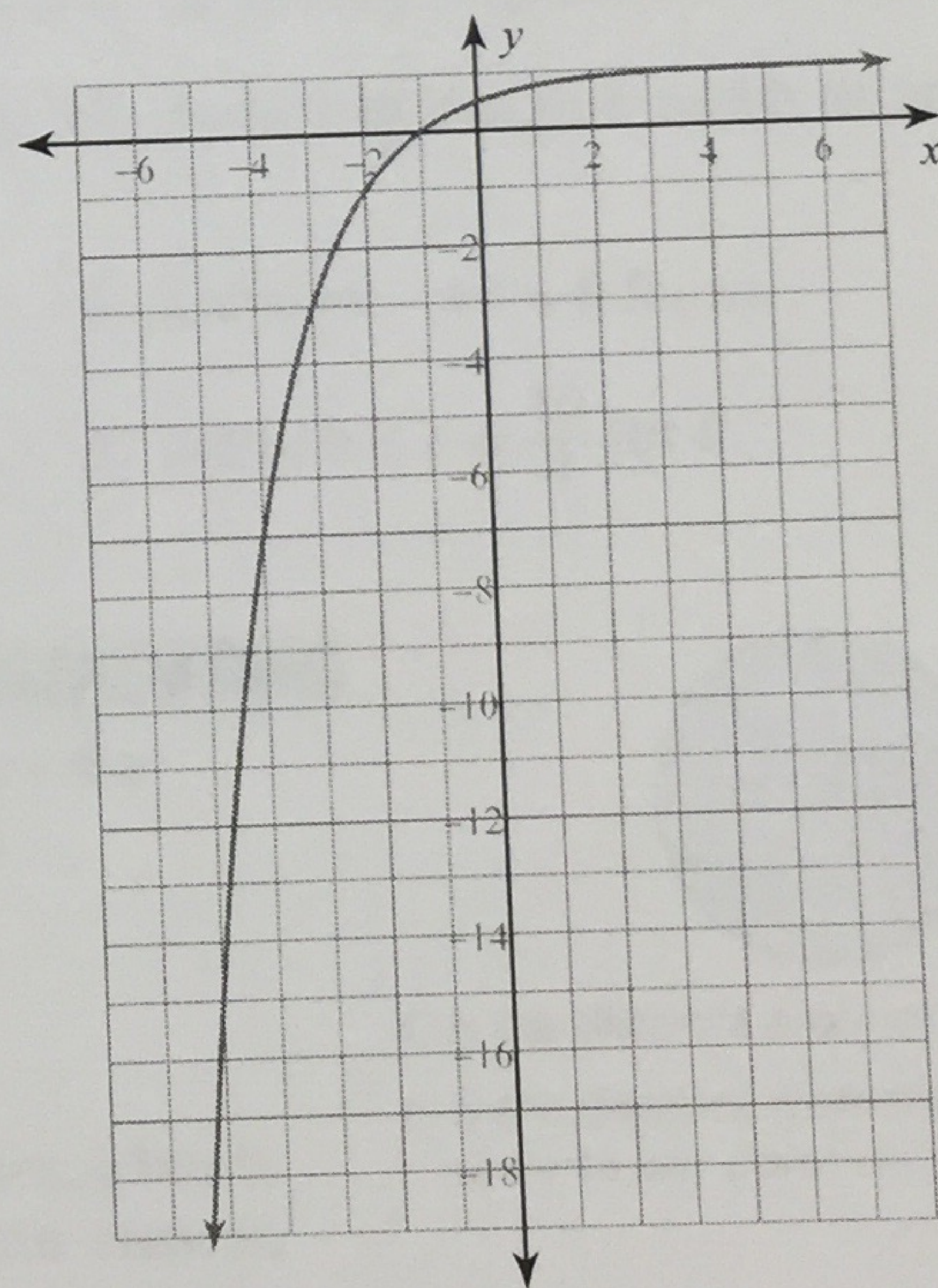
shift up 4

15) $y = 5 \cdot \left(\frac{1}{2}\right)^x + 2$



shift up 5

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



reflection