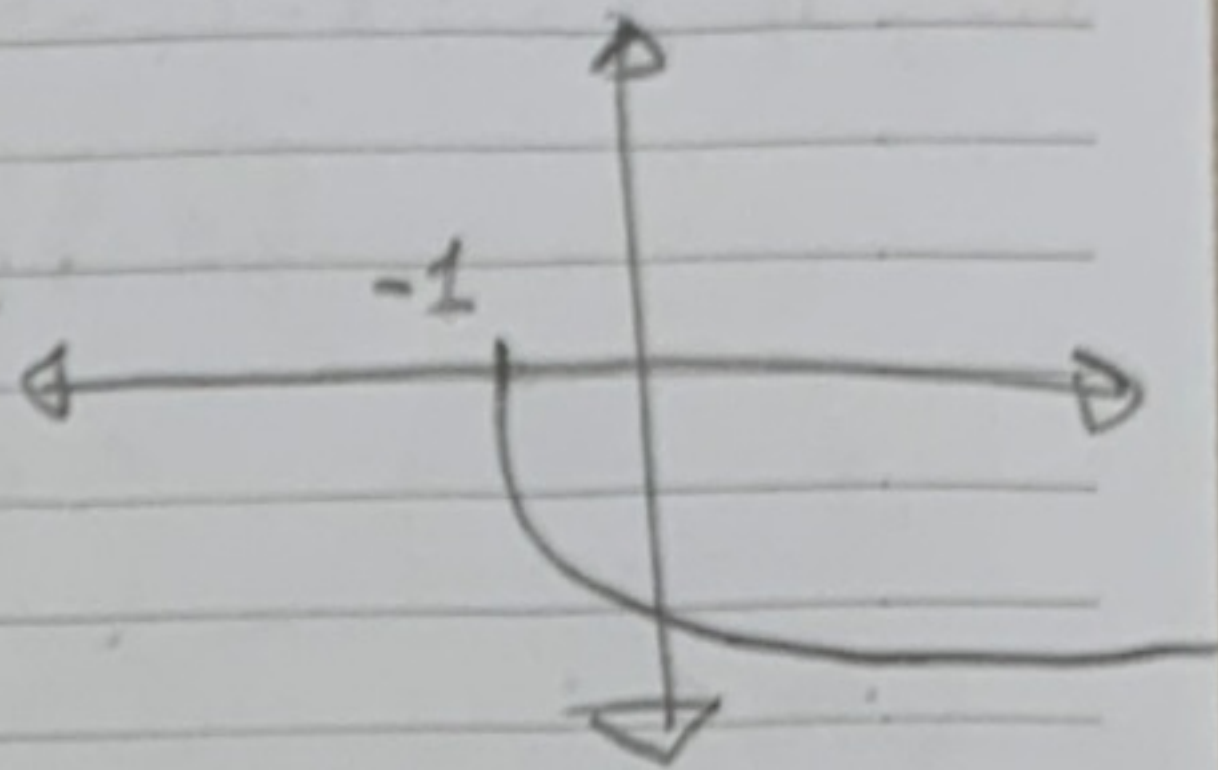


① $y = -2\sqrt{x+1}$

$$y - b = \pm \sqrt{x - a}$$

$$y = 0$$

$$x = -1$$



$x \rightarrow +ve$ موجب
equation $\rightarrow -ve$ سالب

$$D: [-1, \infty[$$

$$R:]-\infty, 0]$$

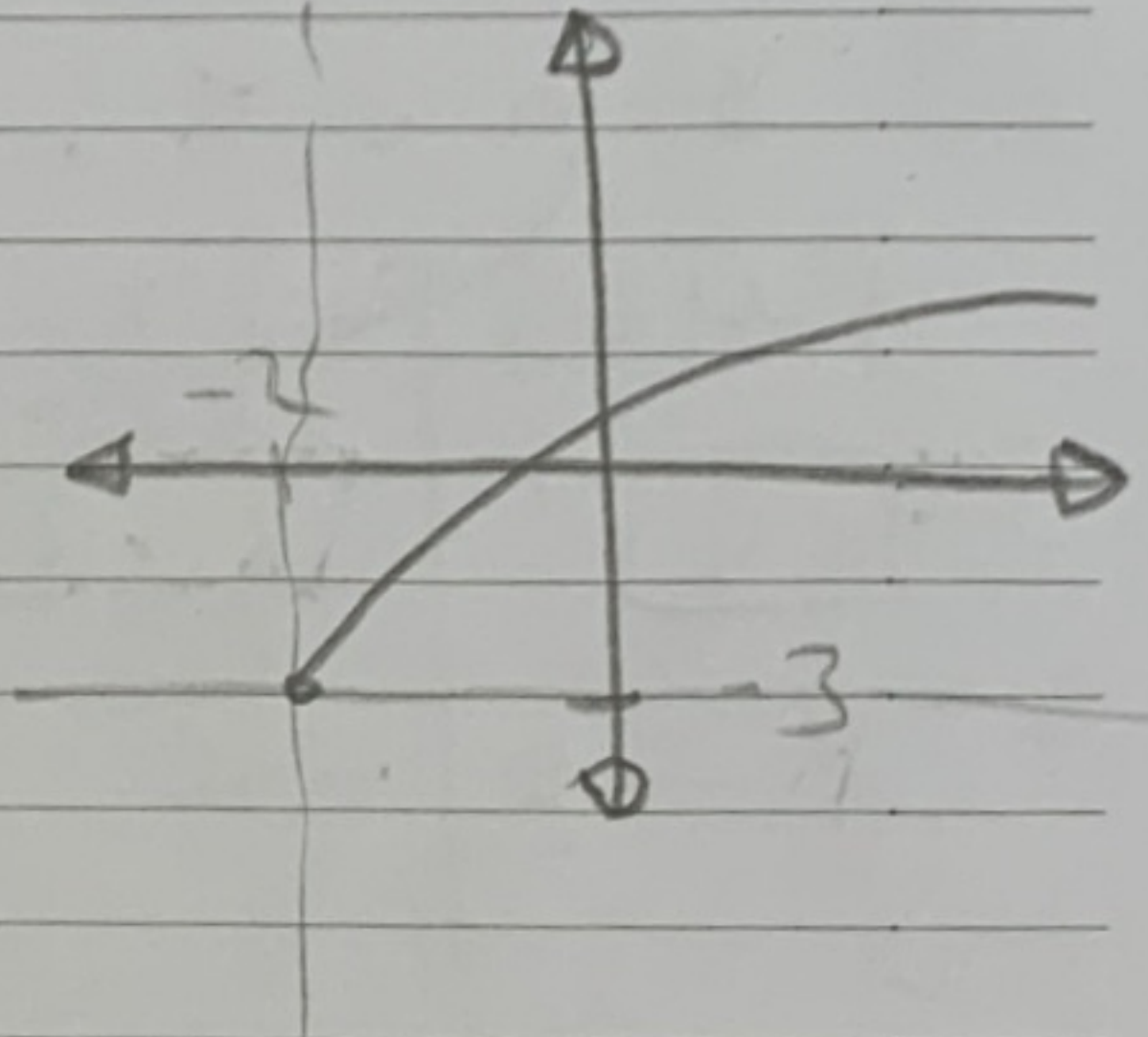
② $y = 2\sqrt{x+2} - 3$

$$y - b = \pm \sqrt{x - a}$$

$$y + 3 = 2\sqrt{x+2}$$

$$y = -3$$

$$x = -2$$



$x \rightarrow +ve$ موجب
eq $\rightarrow +ve$ فوق

$$D: [-2, \infty[$$

$$\text{Range: } [-3, \infty[$$

1) $y = |x-2| - 4$

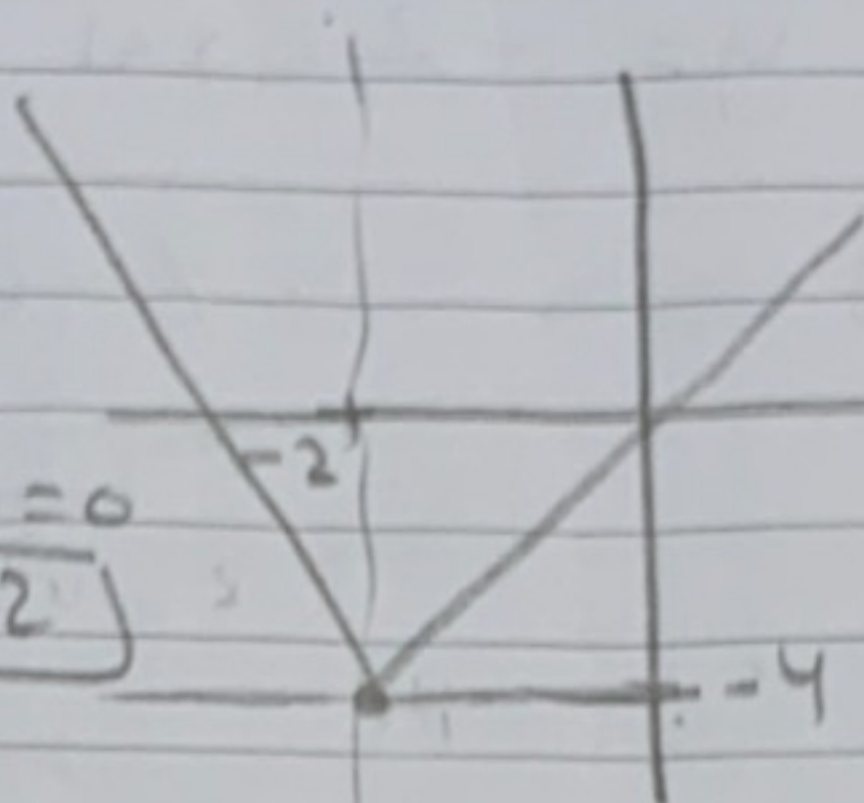
$$y + 4 = |x - 2|$$

$$y = -4$$

$$(2, -4)$$

$$x - 2 = 0$$

$$x = 2$$



$$D: \mathbb{R}$$

$$\text{Range: } [-4, \infty[$$

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

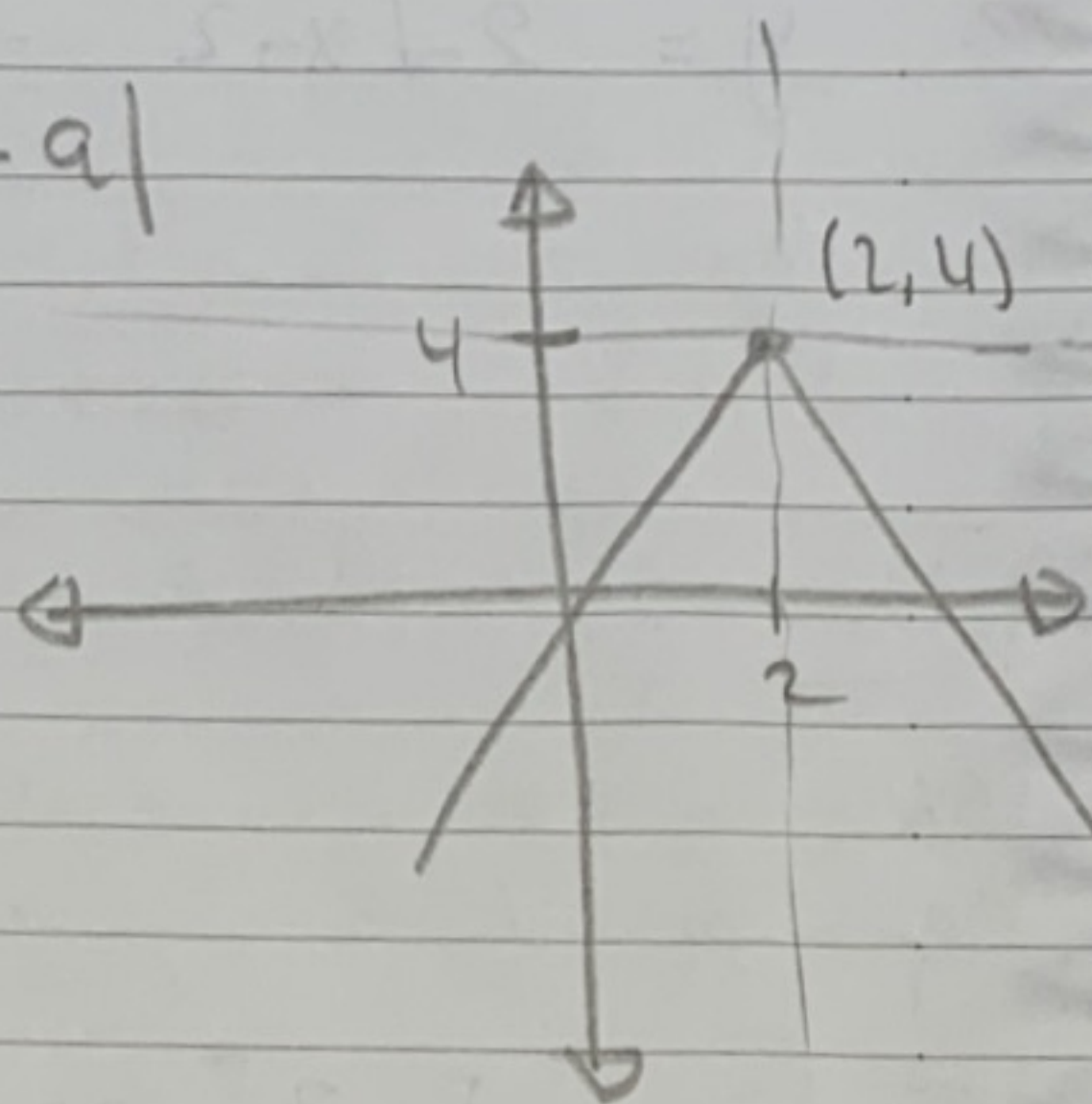
$$y - b = k |x - a|$$

$$y - 4 = -|x - 2|$$

$$y = 4$$

$$x = 2$$

$$k = -1$$



Sheet (3)

* Sketch & find domain & Range:-

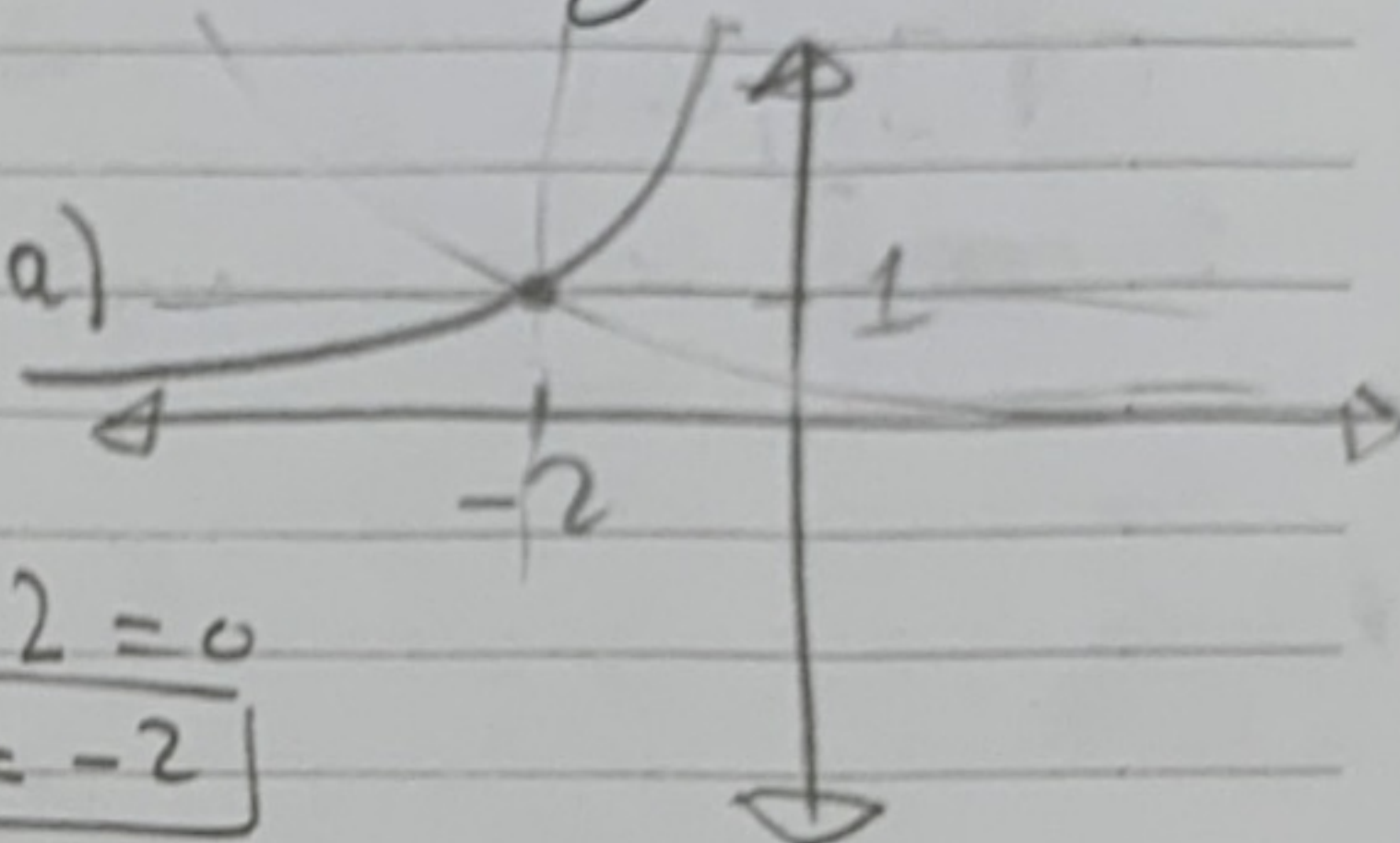
① $y - 1 = e^{2+x}$

$y - b = k e^{(x-a)}$

$y = 1$

$x + 2 = 0$
 $x = -2$

$k = 0$



$(-2, 1)$

Domain: \mathbb{R}

Range: $[-2, \infty[$

② $y = 4 + 2e^{x+1}$

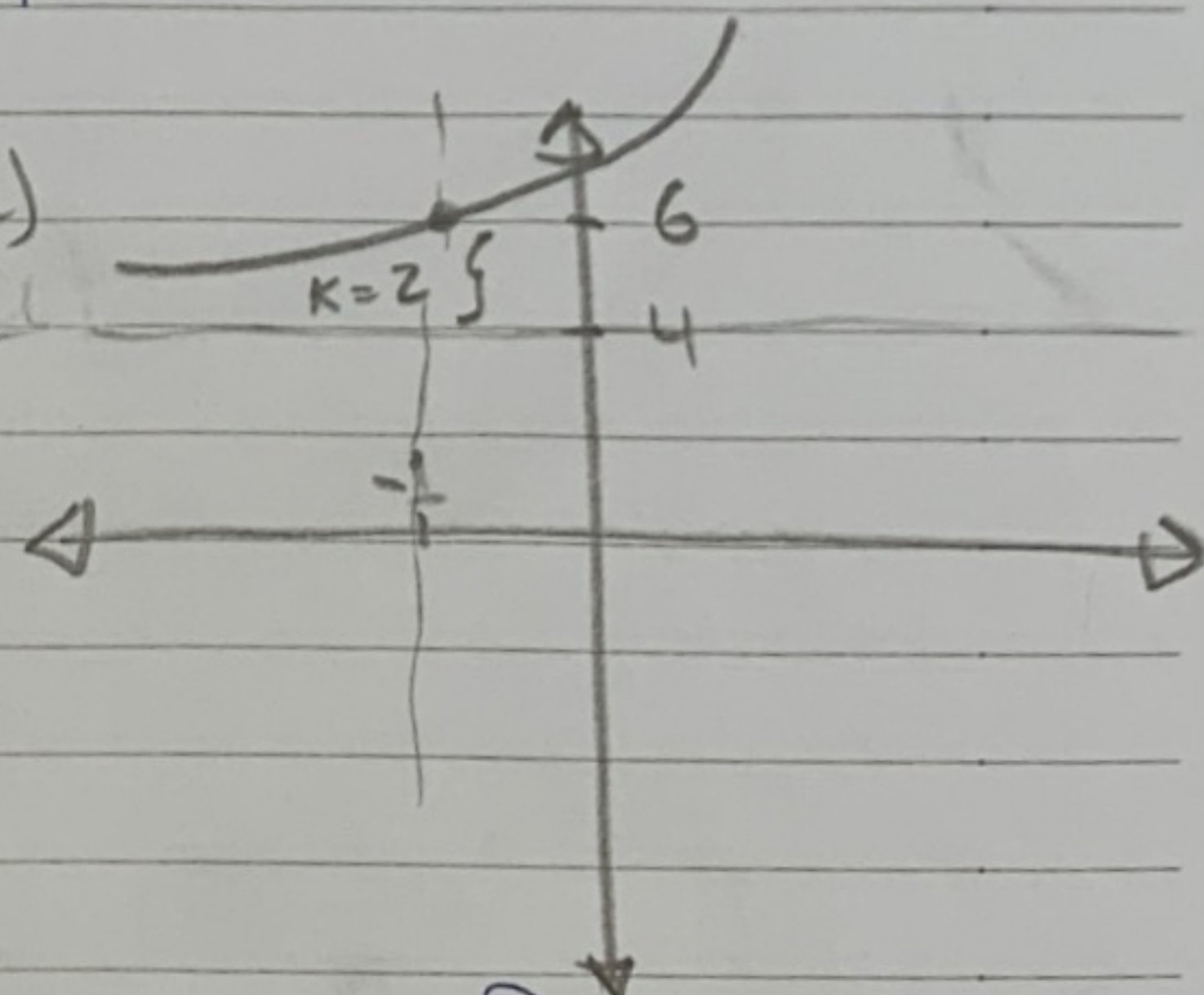
$y - b = k e^{(x-a)}$

$y - 4 = 2e^{x+1}$

$y = 4$

$x = -1$

$(-1, 4)$



Domain: \mathbb{R}

Range: $]4, \infty[$

$k = 2$

التمرين:

$$y = 4^x$$

base

$$D: \mathbb{R}$$

$$r:]0, \infty[$$

base أكبر من 1

