

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره کلاس

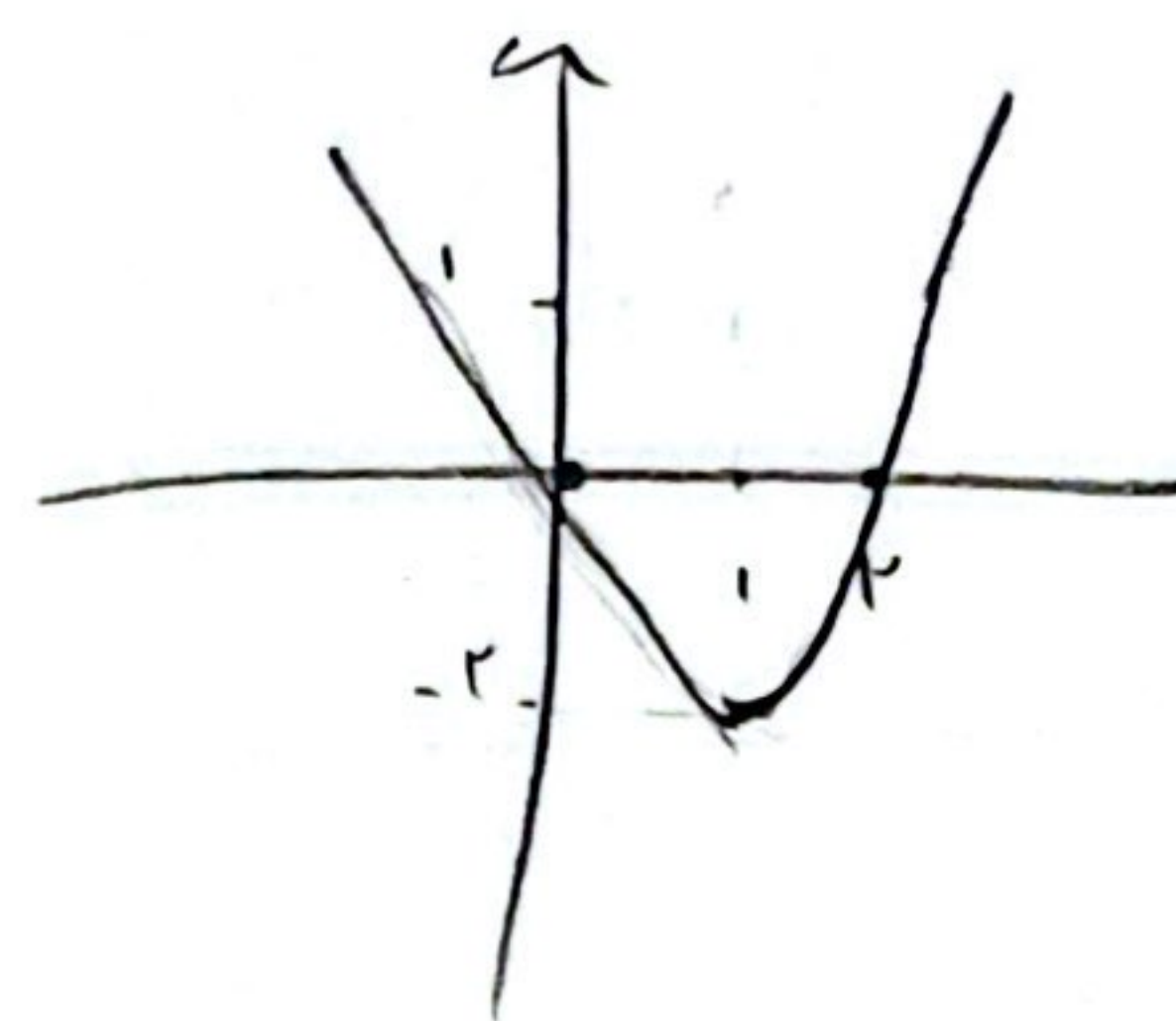
۱

$$x(x^2 - 4)$$

$$\hookrightarrow \frac{x(x+2)(x-2)}{x+2} = x^2 - 4x$$

$$\hookrightarrow x(x-2)$$

$$x \neq -2$$



۲

$$(x-2)^3 = x^3 - 9x^2 + 12x - 1$$

$$\Rightarrow a = -9, b = 12 \Rightarrow D_y = [-9, 12]$$

$$\sqrt[3]{(x-2)^3}, x-2$$

$$R_y = [-1, 1]$$

۳

$$D_y = \mathbb{R} - \{1\} \hookrightarrow R_y = \mathbb{R} - \{1\}$$

$$\left. \begin{array}{l} b = -1 \\ a = -1 \end{array} \right\} \Rightarrow a, b = -2$$

$$\frac{1+b}{a-1} = b$$

$$1+b = -ba + b$$

$$-ba = 1$$

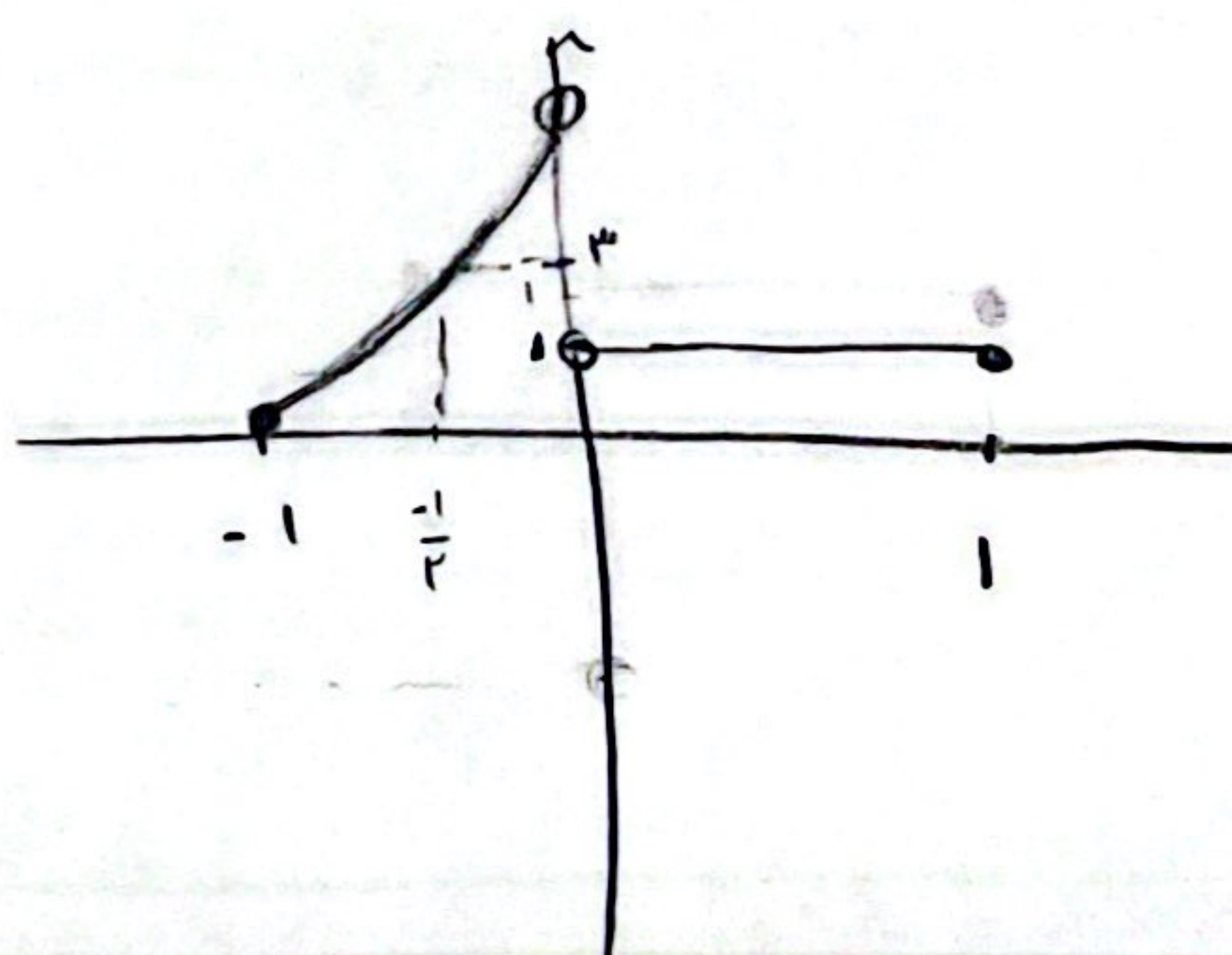
$$\hookrightarrow ba = -1$$

۴

$$\frac{[x]}{x} + \frac{|x|}{x}$$

$$-1 \leq x < 0 \hookrightarrow \frac{-1}{x} + \frac{-x}{x} = \frac{-1}{x} - 1$$

$$0 < x < 1 \hookrightarrow 1$$



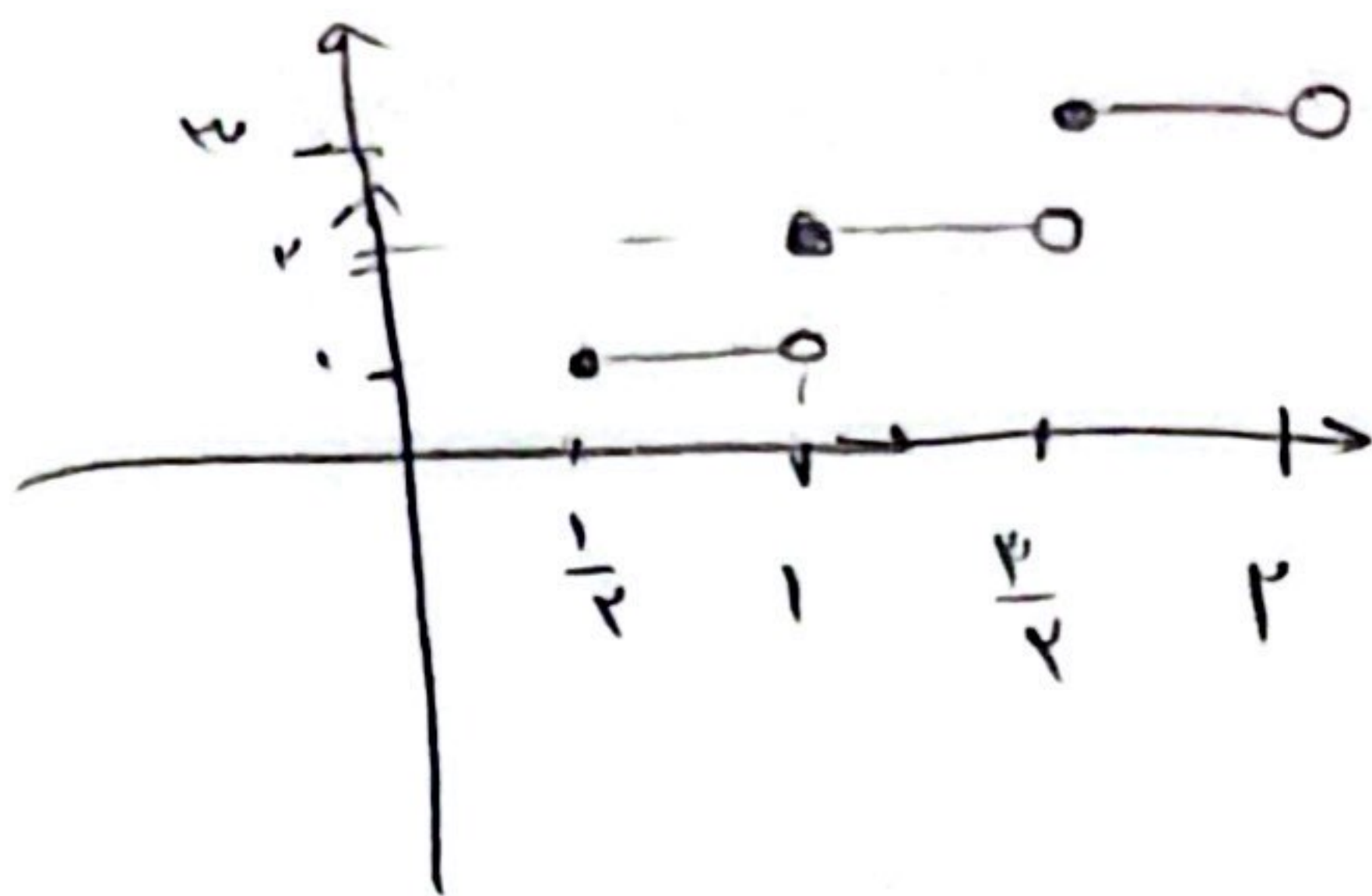
۵

$$y = [x] + [x + \frac{1}{p}]$$

$$\frac{1}{p} \leq x < 1 \rightarrow 1$$

$$1 \leq x < \frac{p}{p} \rightarrow 2$$

$$\frac{p}{p} \leq x < 2 \rightarrow 3$$



ans

6

11. 2

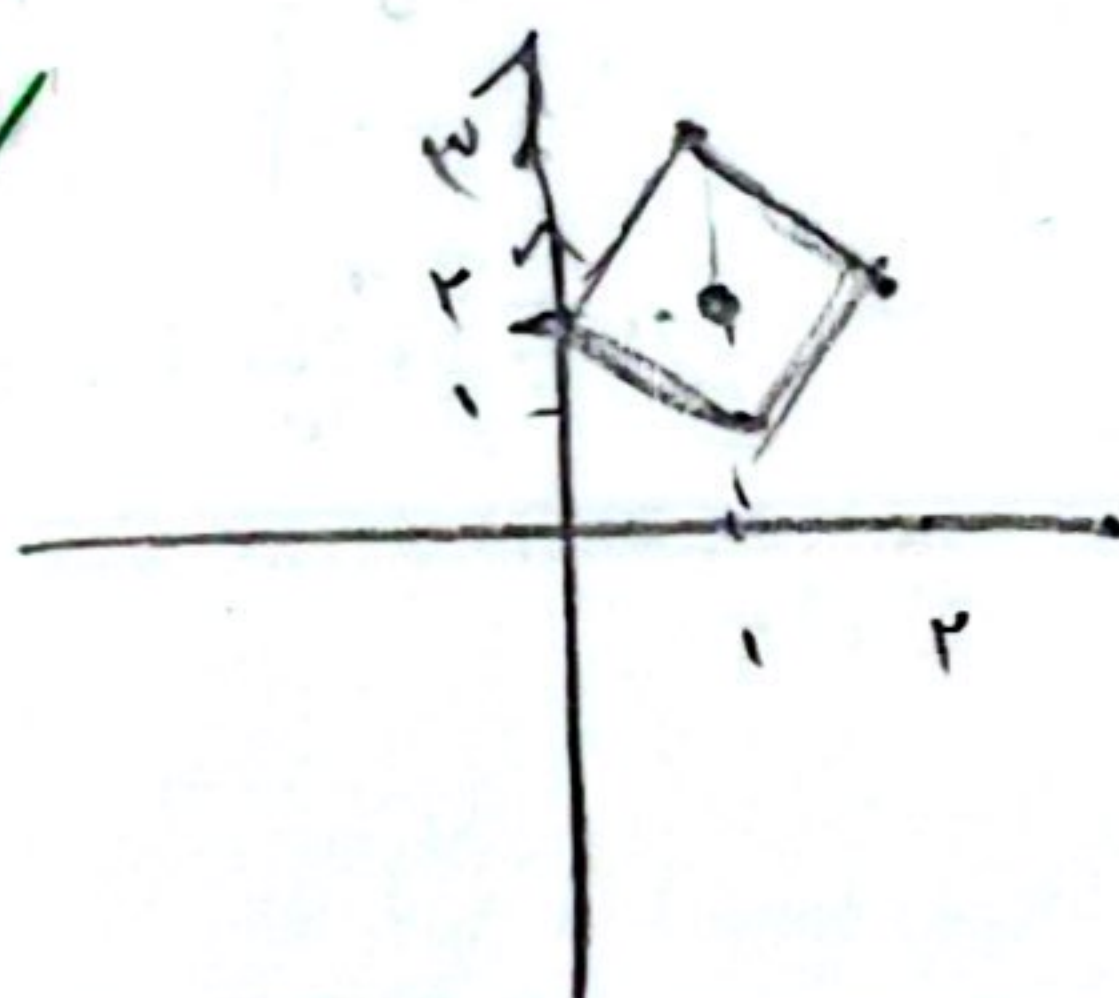
ab = 1

7

8

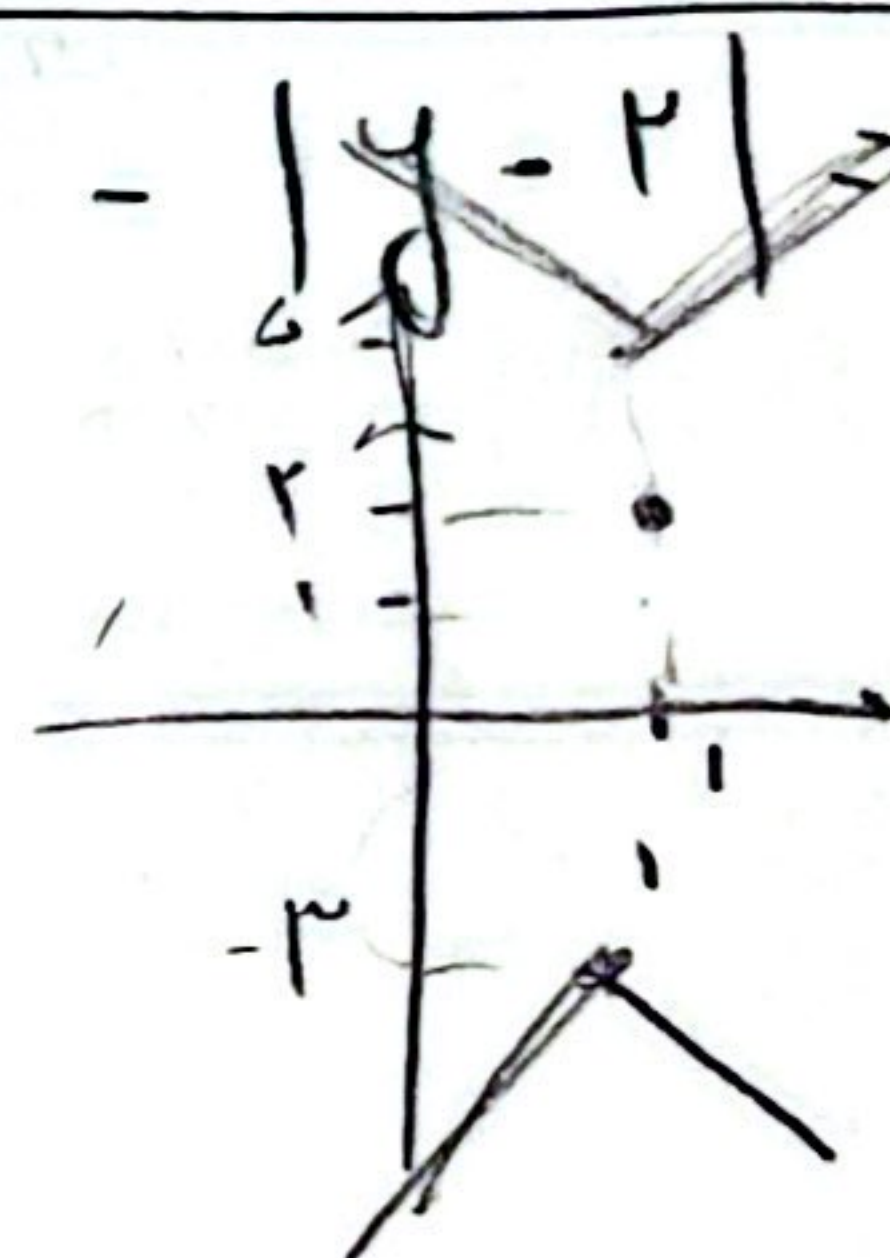
$$\text{ii) } |x-1| + |y-2| = 1$$

A | 1/p



$$\Rightarrow |x-1| - |y-2| = 2$$

A | 1/p



9

10