

$$4a = a^2 + 3 \Rightarrow a^2 - 4a + 3 = 0, \quad a + c + b = 0$$

$$\frac{c}{a}, 1, 3, 1$$

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$$y = |x| \rightarrow \text{الف) } y = |x| = \begin{cases} x & x \geq 0 \\ -x & x < 0 \end{cases}$$

$$|y| = -\sqrt{x-1} = \begin{cases} -\sqrt{x-1} & x \geq 1 \\ 0 & x < 1 \end{cases}$$

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$$|y| = -\sqrt{x-1}, \quad \sqrt{x-1} = \begin{cases} \sqrt{x-1} & x \geq 1 \\ 0 & x < 1 \end{cases}, \quad -\sqrt{x-1} = \begin{cases} -\sqrt{x-1} & x \geq 1 \\ 0 & x < 1 \end{cases}$$

$$|y-1| = \sqrt{x-2} \Rightarrow x=3, \quad |y-1|=1 \Rightarrow y=0, 2 \quad \text{الف) } X$$

$$y^2 - y = \frac{x}{2} \Rightarrow x=0, \quad y^2 - y = 0 \Rightarrow y=0, 1 \quad \text{ب) } X$$

$$\sin^2 x + \cos^2 y = 1 \Rightarrow x=0, \quad \cos^2 y = 1 \Rightarrow y=0, \pi \quad \text{ج) } X$$

$$x y = x \Rightarrow x=0 \Rightarrow y \in \mathbb{R} \quad \text{د) } X$$

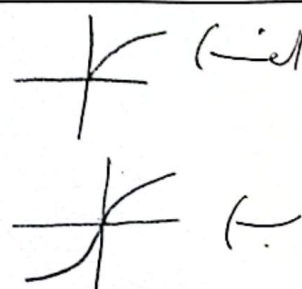
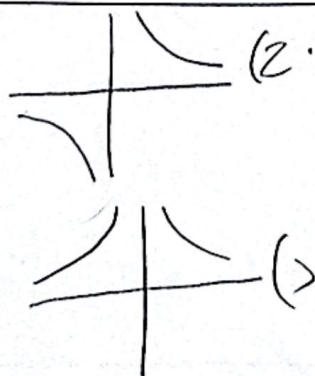
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$$x^2 + |y-1| = 4x \Rightarrow 1 + |y-1| = 4 \Rightarrow |y-1| = 3 \quad \text{الف) } X$$

$$\Rightarrow y = -2, 4$$

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$$y^2 + 3x = 0 \Rightarrow x_1 = x_2 \Rightarrow y_1^2 = y_2^2 \Rightarrow y = y \quad \text{ب) } \checkmark$$



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