

$$a^2 + b^2 = 4a$$

$$a^2 - 4a + b^2 = 0$$

$$\frac{b^2}{a} = 4 - a$$

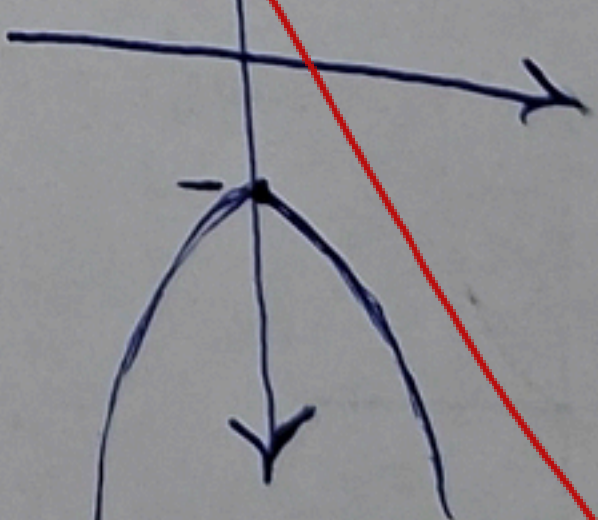
اول ۳

$$1, |y| = |x|$$



$$y, |y| = -\sqrt{x-1}$$

$$y = \pm \sqrt{x-1}$$



$$\begin{aligned} \text{الف } x &= y \Rightarrow |y-1| = \sqrt{y-1} = \sqrt{4} \Rightarrow y-1 = \pm 2 \Rightarrow y = -1 \text{ یا } y = 3 \\ \text{ب } x &= 0 \Rightarrow y^2 - y = 0 \Rightarrow y(y-1) = 0 \Rightarrow y = 0 \text{ یا } y = 1 \\ \text{ج } x &= 0 \Rightarrow 0 + \cos^2 \frac{y}{2} = 1 \Rightarrow \cos^2 \frac{y}{2} = 1 \Rightarrow \cos \frac{y}{2} = \pm 1 \Rightarrow \frac{y}{2} = 0 \text{ یا } \frac{y}{2} = \pi \Rightarrow y = 0 \text{ یا } y = 2\pi \end{aligned}$$

$$\text{د } x = 0 \Rightarrow y = 0$$

$$\text{الف } x = 1 \Rightarrow |1+y-1| = 4 \Rightarrow |y| = 4 \Rightarrow y = 4 \text{ یا } y = -4$$

$$\text{ب } \begin{cases} y_1 = -y_2 \\ y_1 = -y_2 \end{cases} \Rightarrow x_1 = x_2$$

$$x_1 = x_2$$

$$y_1 = y_2$$

$$\Rightarrow y_1 = y_2$$

$$\text{تابع است}$$

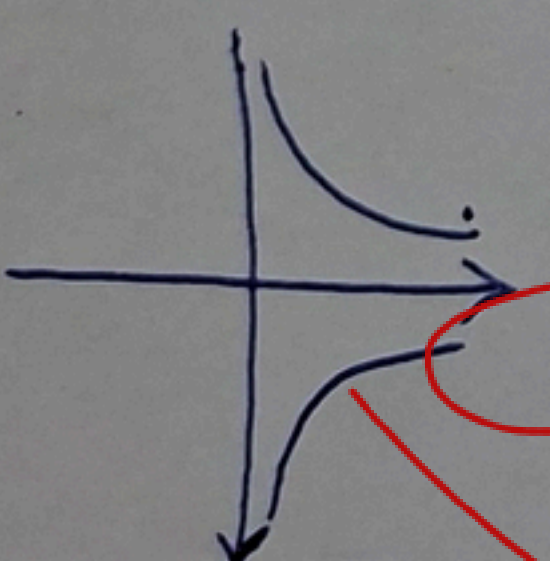
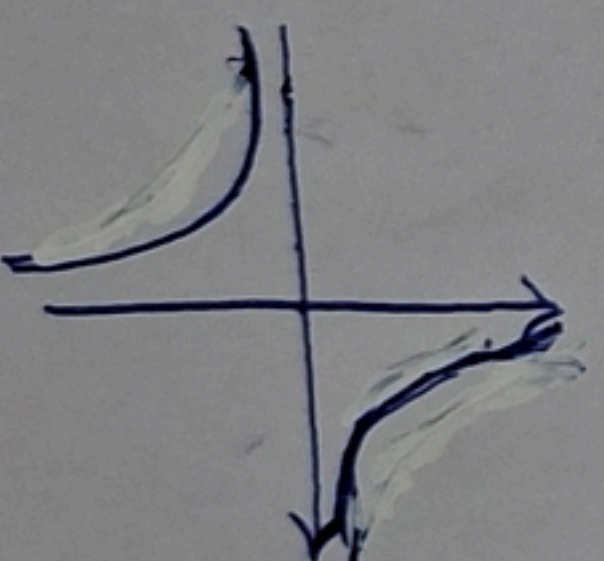
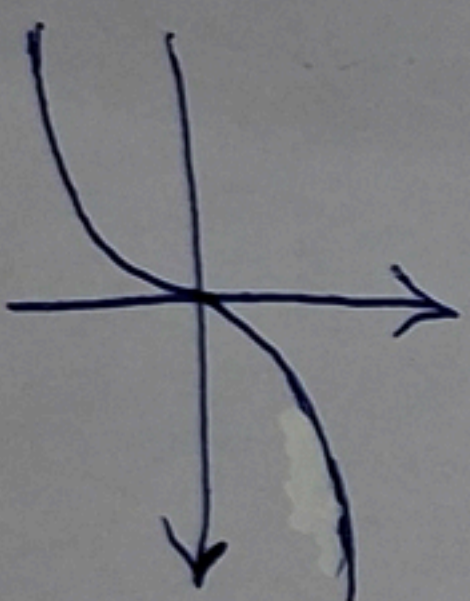
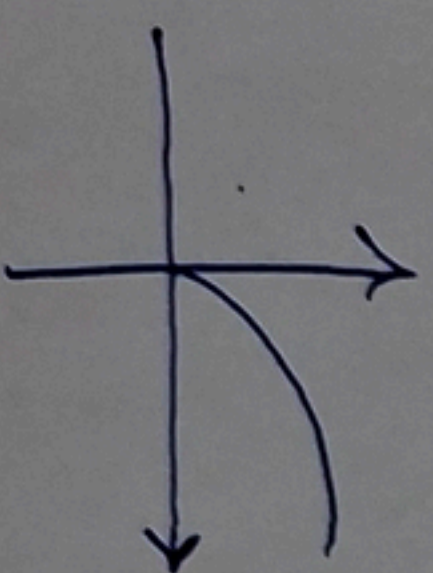
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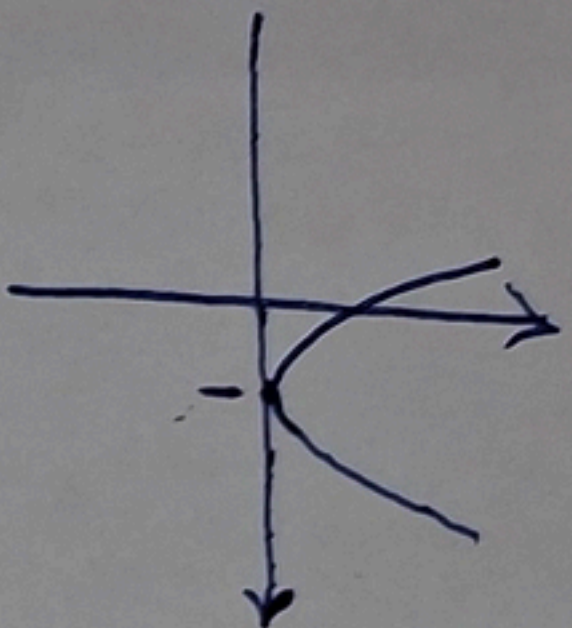
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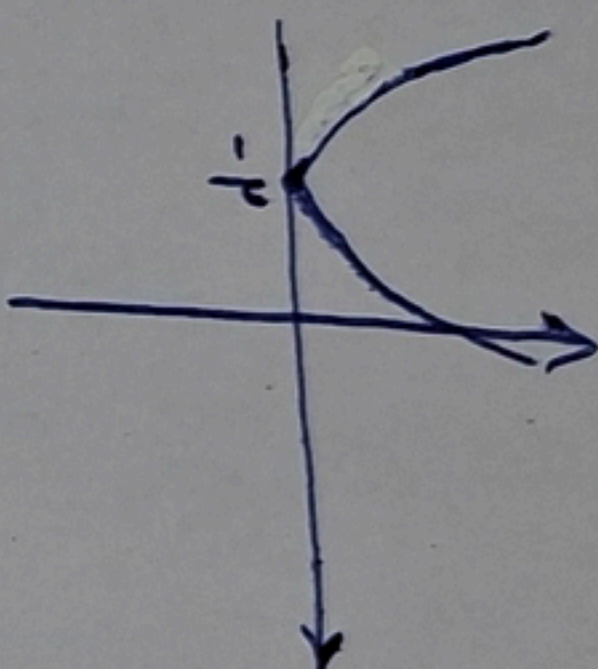
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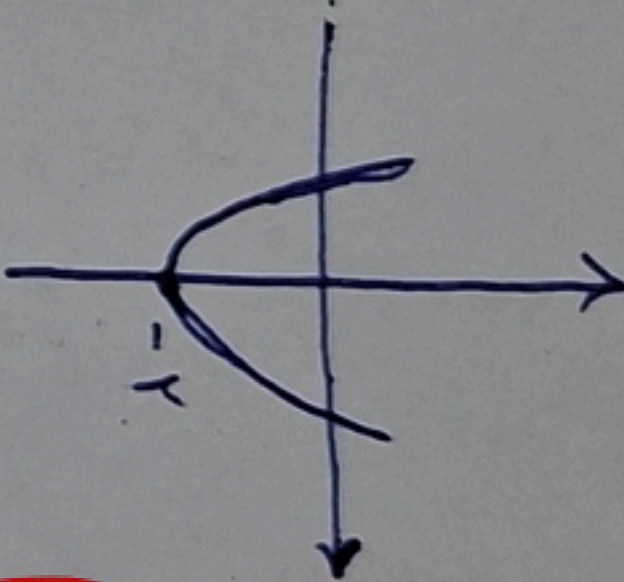
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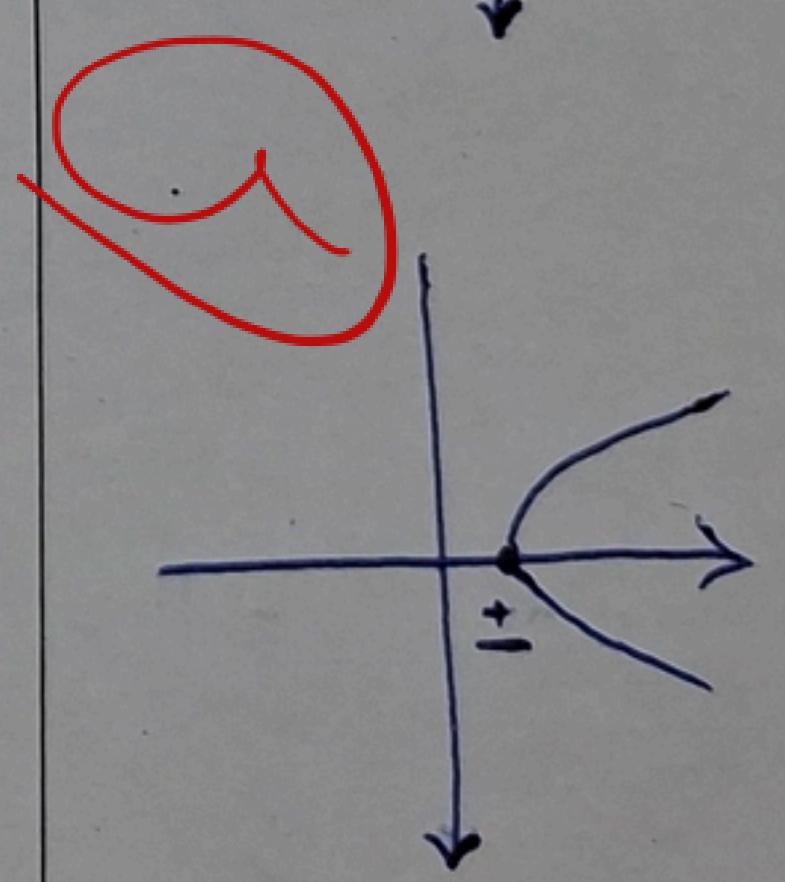
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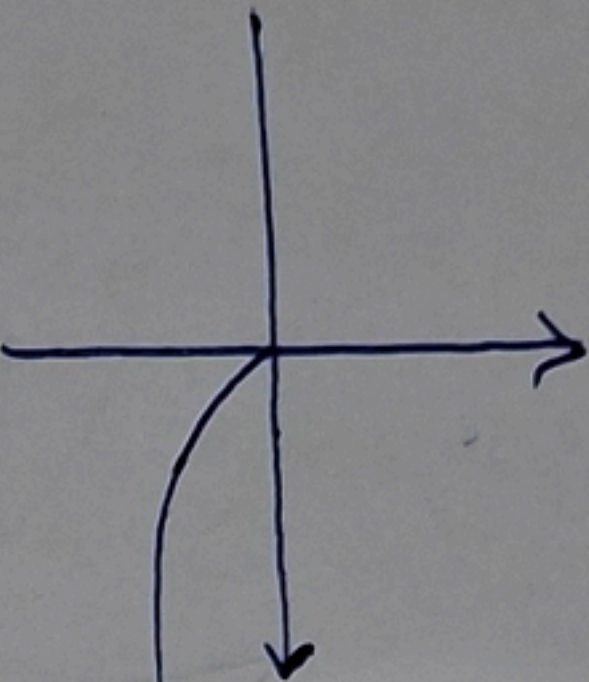


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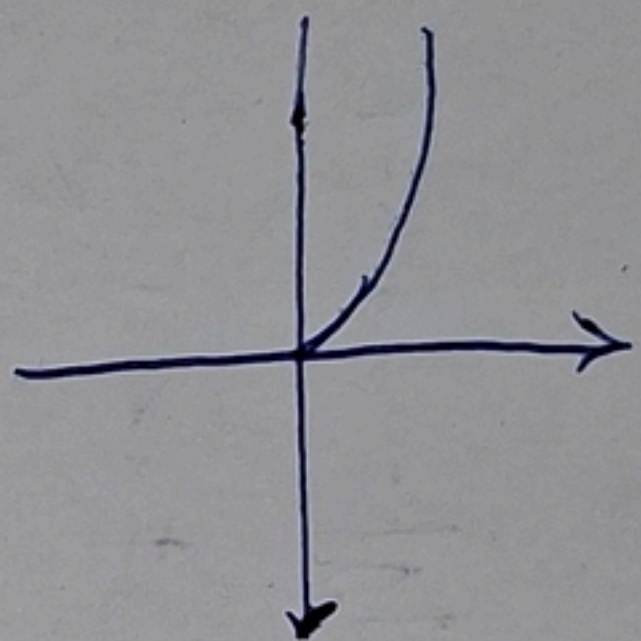


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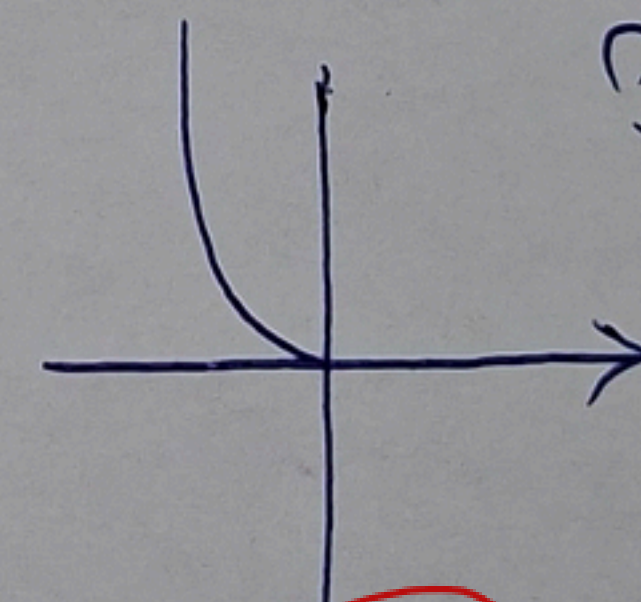
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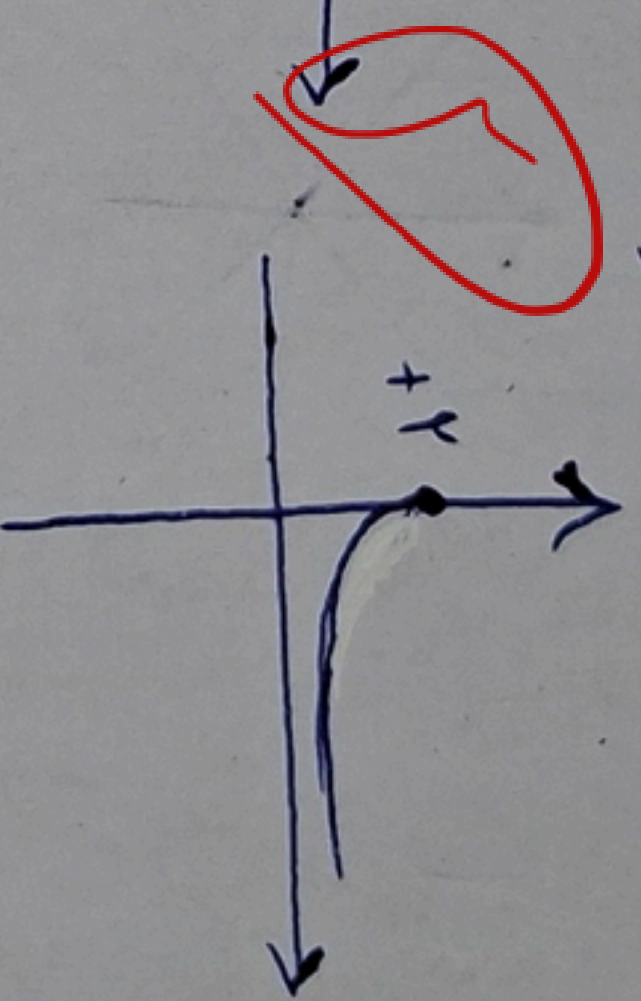
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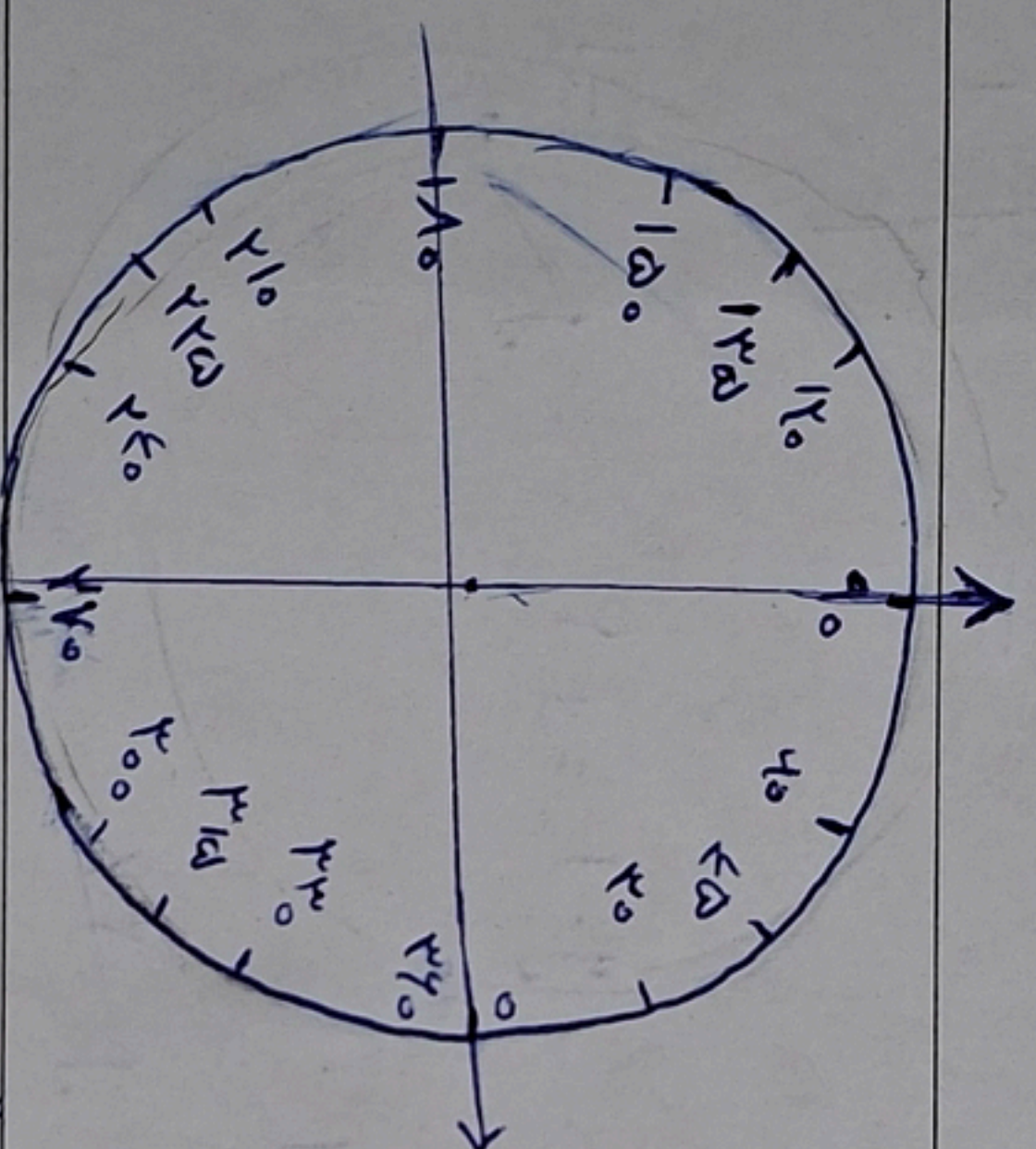
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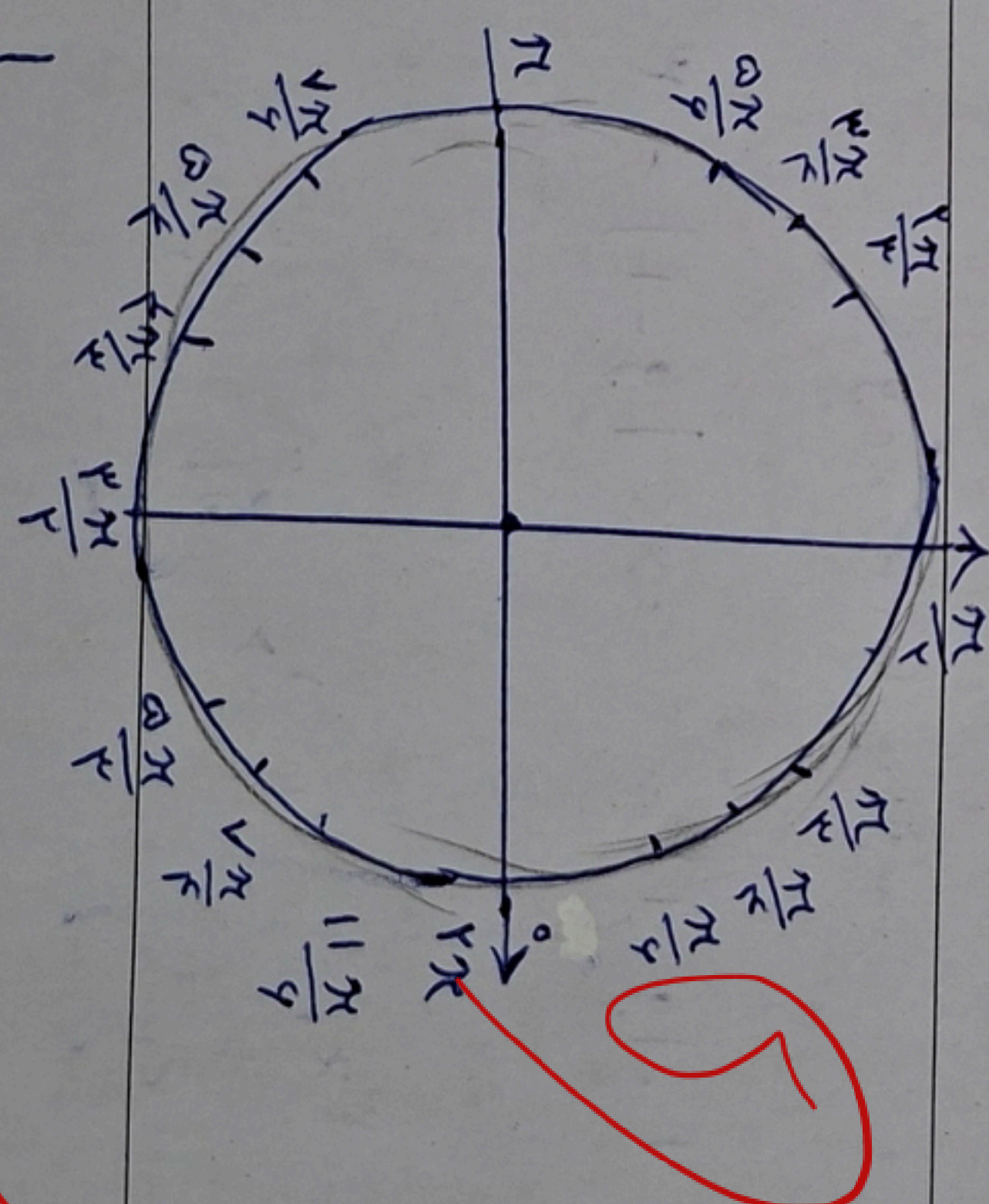


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الف - $\frac{1}{2}$

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