

۱۵/۷۵

الف) $y^3 + 2x^2 - 1 \Rightarrow \begin{cases} y_1 = 2x_1^2 - 1 \\ y_2 = 2x_2^2 - 1 \end{cases} \Rightarrow x_1 = x_2 \Rightarrow y_1 = y_2$ صحیح ✓

پاسخ صحیح بخون

اراده؟ ناقص

ب) $y^3 + y = 2x^2 - 1$ $y_1 + y_1 = (x_1^2 - 1)$ $\Rightarrow x_1 = x_2 \Rightarrow y_1 + y_2 = y_1 + y_1$
 $y_2^3 + y_2 = 2x_2^2 - 1$ $\Rightarrow x_1 = x_2 \Rightarrow y_1 + y_2 = y_1 + y_1$ $\Rightarrow y_1 = y_2$ صحیح ✓

د) $y = (x-1)(x+1) \Rightarrow$ در این مرحله یک و نیم صحیح است ✓

ب) $|y| + xy = x^2 + 1 \Rightarrow x = 1 \Rightarrow |y| + y = 1 + 1 = 2 \Rightarrow y > 0 \Rightarrow y = 1$

ج) $y^3 + x^3 = 2x - 1 \Rightarrow y = \sqrt[3]{-x^3 + 2x - 1}$ $\Rightarrow$ در این مرحله یک و نیم صحیح است ✓

د) $\sqrt[3]{y} + \sqrt[3]{x} = 2 \Rightarrow \sqrt[3]{y} = 2 - \sqrt[3]{x} \Rightarrow y = (2 - \sqrt[3]{x})^3 \Rightarrow$ صحیح ✓

الف) $\tan \frac{\pi}{4} = \frac{\sin \frac{\pi}{4}}{\cos \frac{\pi}{4}} = \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = 1$

ب) $\cot \frac{\sqrt{2}\pi}{4} = \frac{\cos \frac{\sqrt{2}\pi}{4}}{\sin \frac{\sqrt{2}\pi}{4}} = \frac{-\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = -1$

ج) $\tan 45^\circ = \frac{\sin 45^\circ}{\cos 45^\circ} = \frac{\frac{1}{\sqrt{2}}}{\frac{1}{\sqrt{2}}} = 1$

د) $\cot 110^\circ = \frac{\cos 110^\circ}{\sin 110^\circ} = \frac{-1}{0} \Rightarrow$ صحیح ✓

صحیح ✓

الف) $\sin \alpha = \frac{1}{2}$ $\Rightarrow \alpha = \left\{ \frac{\pi}{6} + 2k\pi, \frac{5\pi}{6} + 2k\pi \right\}$

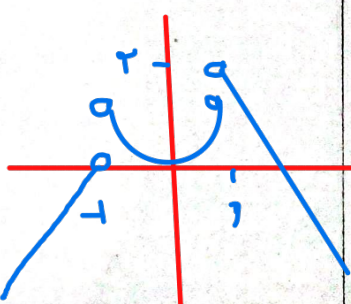
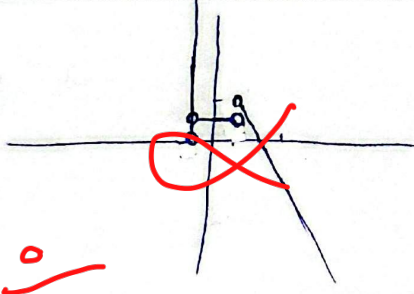
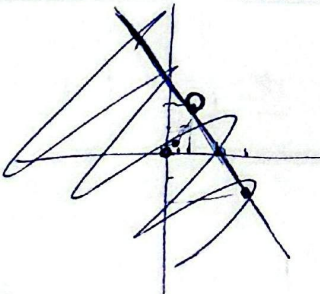
درباره $\alpha < \pi$ سوال خوانسته

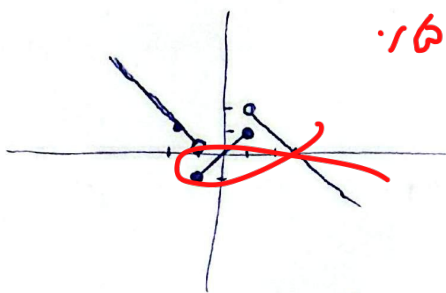
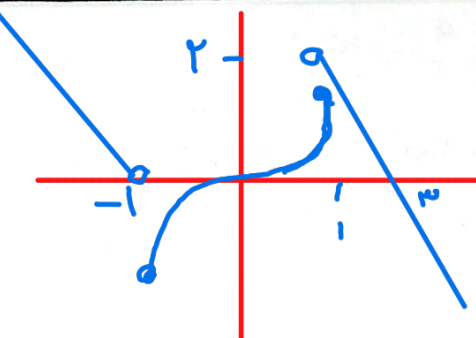
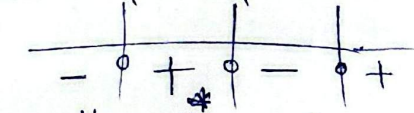
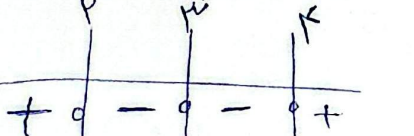
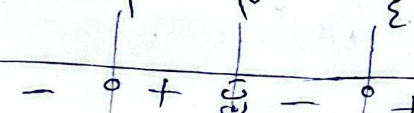
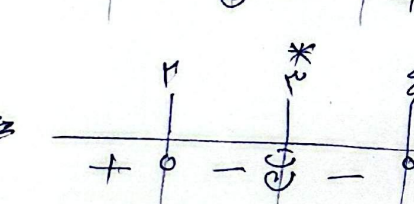
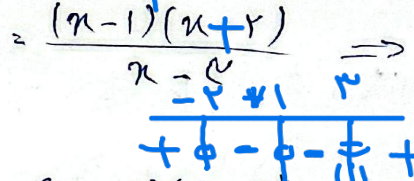
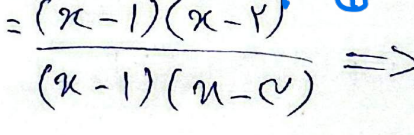
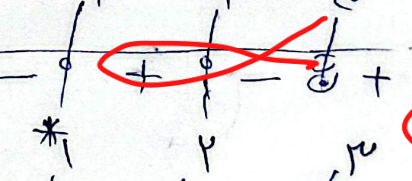
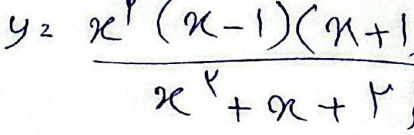
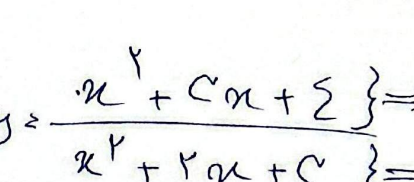


ب) $\cos \alpha = \frac{\sqrt{2}}{2}$ $\Rightarrow \alpha = \left\{ \frac{\pi}{4} + 2k\pi, \frac{7\pi}{4} + 2k\pi \right\}$



د) $\alpha = \left\{ 2\pi \pm \frac{\pi}{2} \right\}$



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الف)  ب) 	Ⓟ ✓	٧
الف)  ب) 	Ⓟ ✓	٨
الف) $y = \frac{(x-1)(x+2)}{x-2} \Rightarrow$  ب) $y = \frac{(x-1)(x-2)}{(x-1)(x-2)} \Rightarrow$ 	 Ⓟ ١	٩
الف) $y = \frac{x^2(x-1)(x+1)}{x^2+x+2} \Rightarrow$  ب) $y = \frac{x^2+x+2}{x^2+2x+2} \Rightarrow$ 	Ⓟ ✓	١٠

$$y_1^r + y_1 = r_{x_1}^r - 1$$

$$y_2^r + y_2 = r_{x_2}^r - 1$$

$$\xrightarrow{x_1 = x_2^r}$$

$$y_1^r + y_1 = r_{x_1}^r - 1$$

$$y_2^r + y_2 = r_{x_1}^r - 1$$

← ب

$$\rightarrow y_1^r + y_1 = y_2^r + y_2 \rightarrow$$

$$\rightarrow (y_1^r - y_2^r) + (y_1 - y_2) = 0 \rightarrow (y_1 - y_2)(y_1^r + y_2 y_1 + y_2^r) + (y_1 - y_2) = 0$$

$$\rightarrow (y_1 - y_2)(y_1^r + y_2 y_1 + y_2^r + 1) = 0$$

$$y_1 = y_2 \quad \checkmark \rightarrow \text{تابع است}$$

$$y_1^r + y_2 y_1 + y_2^r + 1 = 0 \rightarrow \Delta = (y_2)^r - 4(y_2^r + 1) = -r y_2^r + 4 \rightarrow \Delta < 0$$

← ریشه ندارد