

نام و نام خانوادگی کمرنگ نظر پاسخنامه تشریحی تکلیف شماره ۴ کلاس A سوال

تکلیف برای ۴ آزمون است

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

ب) $y^3 + y = 2x^2 - 1$ $y_1^3 + y_1 = 2x_1^2 - 1$ $y_2^3 + y_2 = 2x_2^2 - 1$ $\Rightarrow x_1 = x_2 \Rightarrow y_1^3 + y_1 = y_2^3 + y_2$ $\Rightarrow y_1 = y_2$ $\Rightarrow y_1 = \{0, -1\}$ ✓ پاسخ

الف) $y = (x-1)(x+1) \Rightarrow$ از هر دو یک و یکم ✓ پاسخ

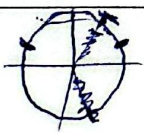
ب) $|y| + xy = x^2 + 1 \Rightarrow x = 1 \Rightarrow |y| + y = 1 + 1 = 2 \Rightarrow y > 0 \Rightarrow y = 1$ $y < 0 \Rightarrow -y + y = 0 \neq 2$ ✓ پاسخ
ج) $y^3 + x^3 = 2x - 1 \Rightarrow y = \sqrt[3]{-x^3 + 2x - 1}$ $\Rightarrow$ به ازای هر x یک و یکم ✓ پاسخ
د) $\sqrt[3]{y} + \sqrt[3]{x} = 2 \Rightarrow \sqrt[3]{y} = 2 - \sqrt[3]{x} \Rightarrow y = (2 - \sqrt[3]{x})^3 \Rightarrow$ ✓ پاسخ

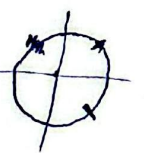
الف) $\tan \frac{\pi}{4} = \frac{\sin \frac{\pi}{4}}{\cos \frac{\pi}{4}} = \frac{\frac{\sqrt{2}}{2}}{\frac{\sqrt{2}}{2}} = 1$ ✓ پاسخ

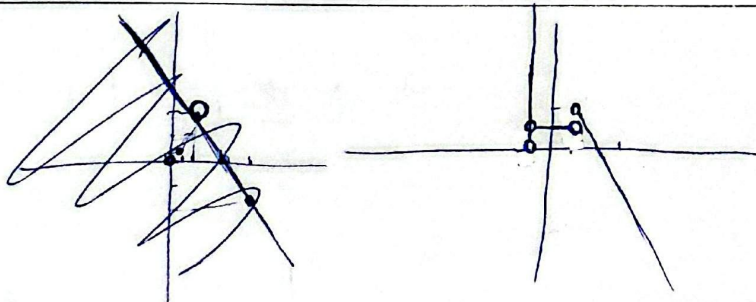
ب) $\cot \frac{\sqrt{2}\pi}{4} = \frac{\cos \frac{\sqrt{2}\pi}{4}}{\sin \frac{\sqrt{2}\pi}{4}} = \frac{-\frac{\sqrt{2}}{2}}{\frac{1}{2}} = -\sqrt{2}$ ✓ پاسخ

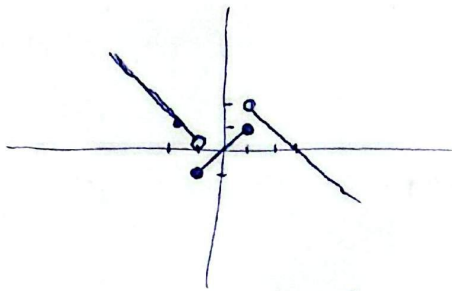
ج) $\tan 45^\circ = \frac{\sin 45^\circ}{\cos 45^\circ} = \frac{\frac{1}{\sqrt{2}}}{\frac{1}{\sqrt{2}}} = 1$ ✓ پاسخ

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

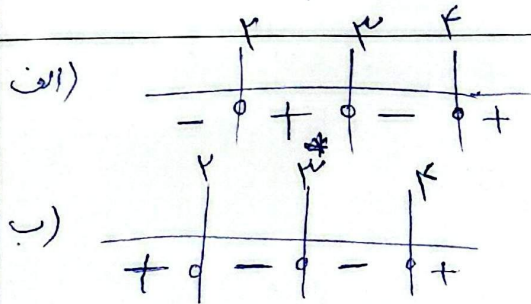
الف) $\sin \alpha = \frac{1}{\sqrt{2}}$  $\Rightarrow \alpha = \left\{ \frac{\pi}{4} + 2k\pi, \frac{3\pi}{4} + 2k\pi \right\}$ ✓ پاسخ

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

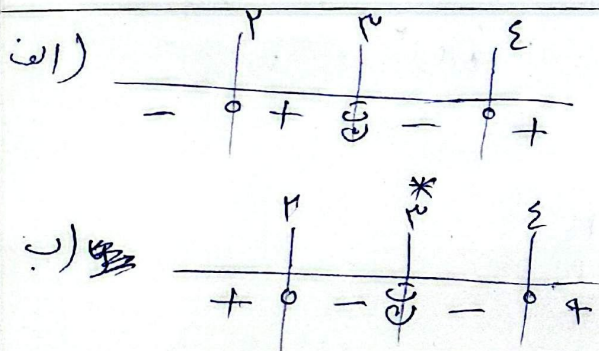




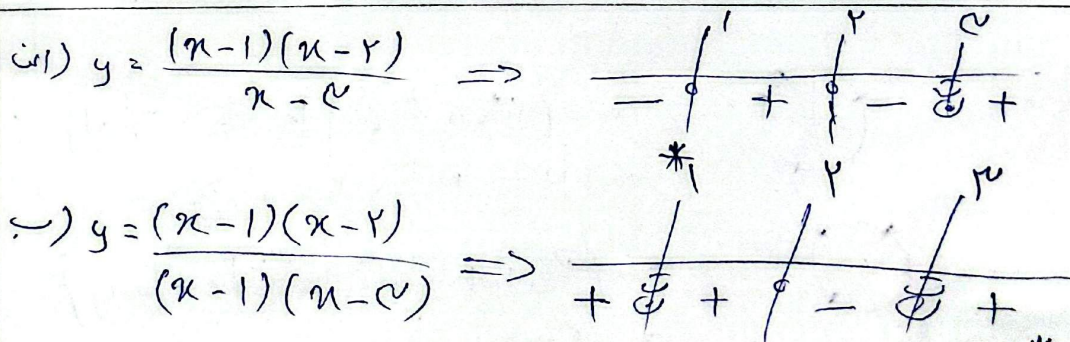
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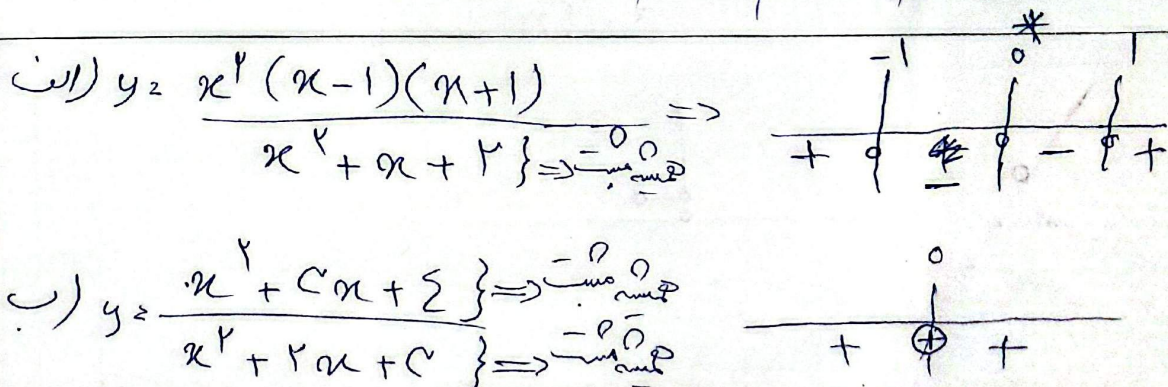
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