

نام و نام خانوادگی سربالیا سوسنی زارگان پاسخنامه تشریحی تکلیف شماره ۷ کلاس چهارم چارمنش

تابع است $\Rightarrow y_1 = y_2 \Rightarrow y_1^3 = y_2^3 \Rightarrow y_1^3 = y_2^3 \Rightarrow y_1^3 = y_2^3 \Rightarrow y_1^3 = y_2^3$
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۱ $\Rightarrow y_1^3 + y_2^3 = 3x^2 - 1 \Rightarrow y_1^3 + y_2^3 = 3x^2 - 1 \Rightarrow y_1^3 + y_2^3 = 3x^2 - 1$
 $\Rightarrow y_1^3 + y_2^3 = 3x^2 - 1 \Rightarrow y_1^3 + y_2^3 = 3x^2 - 1 \Rightarrow y_1^3 + y_2^3 = 3x^2 - 1$

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الف) $\tan \frac{\pi}{3} = \tan y_0 \Rightarrow \frac{\sin y_0}{\cos y_0} \Rightarrow \frac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} \Rightarrow \sqrt{3}$

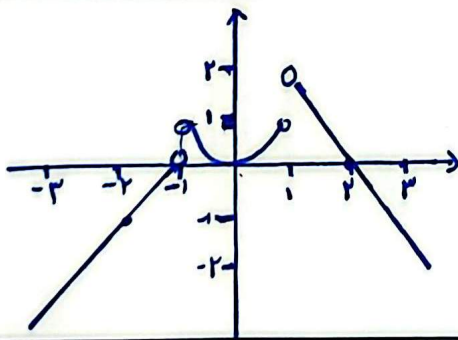
ب) $\cot \frac{\sqrt{\pi}}{y} = \cot 21.0 \Rightarrow \frac{\cos 21.0}{\sin 21.0} \Rightarrow \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}}$

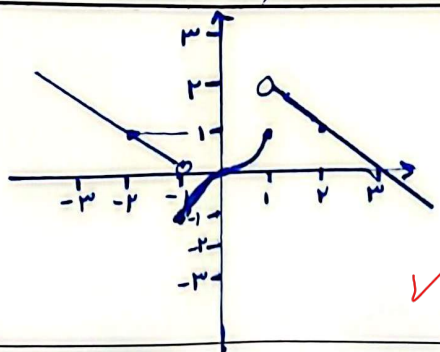
۲) $\tan 33.0 = \frac{\sin 33.0}{\cos 33.0} = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}}$

۳) $\cot 11.0 = \frac{\cos 11.0}{\sin 11.0} = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}}$

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

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





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الف) $(x-2)(x-3)(x-4) \Rightarrow \frac{x}{f(x)} \begin{array}{c|ccc} & 2 & 3 & 4 \\ \hline & - & + & - \end{array} \Rightarrow [2, 3] \cup [4, +\infty)$

ب) $(x-2)(x-3)^2(x-4) \Rightarrow \frac{x}{f(x)} \begin{array}{c|ccc} & 2 & 3^* & 4 \\ \hline & + & - & + \end{array} \Rightarrow (-\infty, 2] \cup [3, 4) \cup [4, +\infty)$

الف) $\frac{(x-2)(x-4)}{(x-3)^2} \Rightarrow \frac{x}{f(x)} \begin{array}{c|ccc} & 2 & 3^* & 4 \\ \hline & - & + & - \end{array} \Rightarrow [2, 3) \cup [4, +\infty)$

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الف) $\frac{x^3 - 3x^2 + 2x}{x-3} \Rightarrow \frac{x^3 - 3x^2 + 2x}{x-3} \Rightarrow (x-1)(x^2 + x - 2) \Rightarrow (x-1)(x-1)(x+2) \Rightarrow (x-1)^2(x+2)$

ب) $\frac{x^3 - 3x^2 + 2x}{x^2 - 3x + 2} = \frac{(x-1)(x-2)(x+2)}{(x-1)(x-2)} = x+2$

$\frac{x}{f(x)} \begin{array}{c|ccc} & 1 & 2 & 3 \\ \hline & + & - & + \end{array} \Rightarrow (-\infty, 1] \cup (2, 3) \cup (3, +\infty)$

الف) $\frac{x^2 - x^2}{x^2 + x + 2} = \frac{x^2(x-1)(x+1)}{x^2 + x + 2} \Rightarrow \frac{x}{f(x)} \begin{array}{c|ccc} & 1 & 0 & 1 \\ \hline & + & - & + \end{array} \Rightarrow [-1, 0] \cup [1, +\infty)$

ب) $\frac{x^2 + 3x + 2}{x^2 + 2x + 2} = \frac{+}{+} \Rightarrow \frac{x}{f(x)} \begin{array}{c|ccc} & -\infty & & +\infty \\ \hline & + & & + \end{array}$

جواب: علامت برای پیدا کردن علامت ریشه در فضای مختلف است.
نیمه شش هاله به عنوان جواب آورده می شود.

$(-\infty, 1] \cup (2, 3) \cup (3, +\infty)$