

سوال ۱

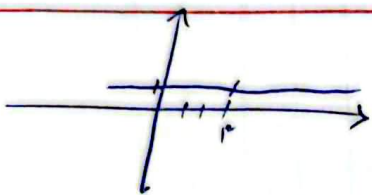
تابع هست $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$

تابع نیست $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$

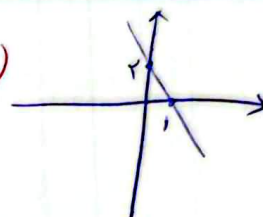
تابع نیست $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$
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 $x_1, x_2 \rightarrow y_1, y_2 \rightarrow y_1, y_2, y_3$

(الف)

 $y=1$

(ب)

سوال ۲
 $y=2x+2$

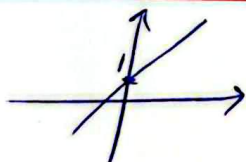
الف) $y=2x \rightarrow a=1, b=0$
 $a+2b \rightarrow 1+2(0)=1$

سوال ۳

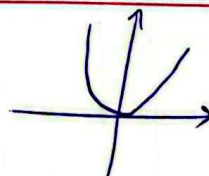
ب) $\frac{-a}{2a} = \frac{-1}{2} = -\frac{1}{2}$
 $\frac{-b}{2a} = \frac{0}{2} = 0$
 $a+2b = 1+2(0)=1$

سوال ۴

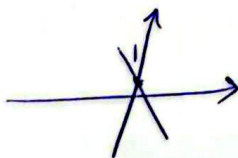
(الف)



(ج)



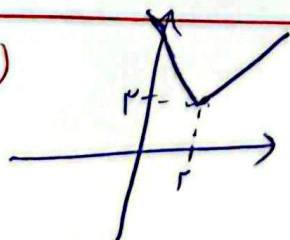
(ب)



(د)

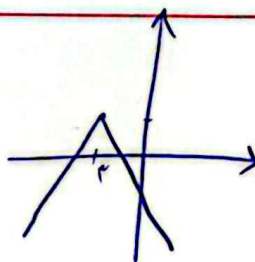


(الف)



سوال ۵

(ب)



الف) $x(x-4) > 0 \Rightarrow \begin{cases} x > 0 \\ x > 4 \end{cases} D_f = \mathbb{R} - \{0, 4\}$

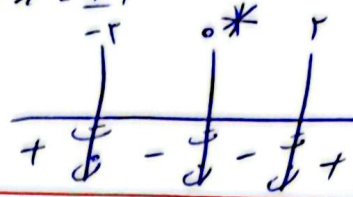
سؤال ٤

ب) $D_f = \mathbb{R} \rightarrow \Delta < 0$

د) $x^2(x^2-4) > 0 \Rightarrow \begin{cases} x > 0 \\ x > \pm 2 \end{cases}$

ج) $\Delta < 0, D_f = \mathbb{R}$

$D_f = \mathbb{R} - \{2, 0, -2\}$



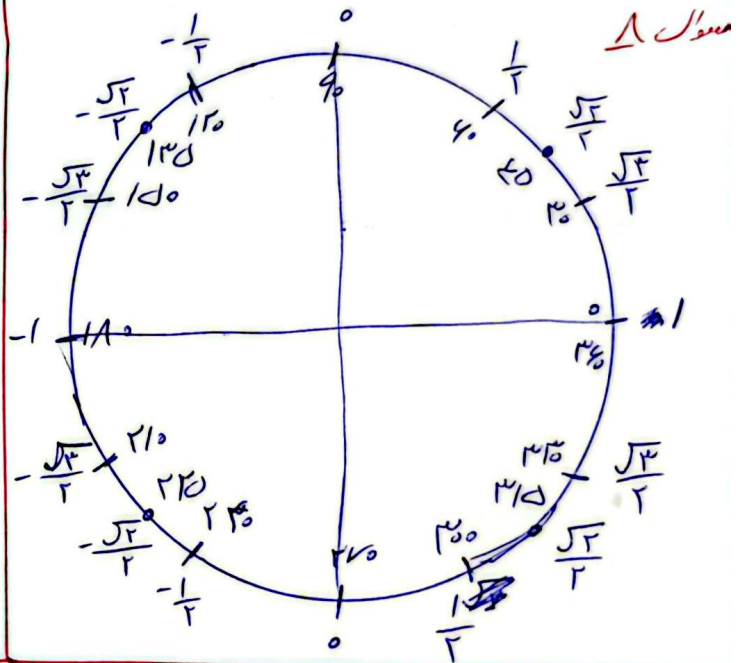
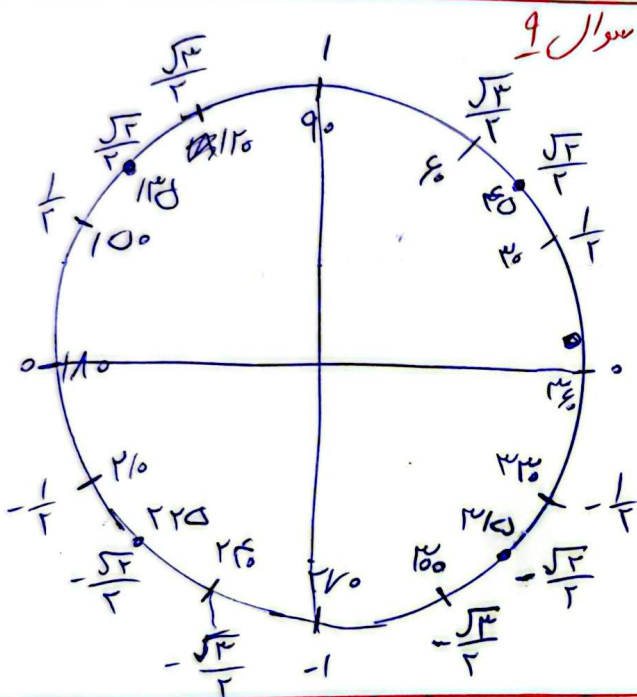
الف) $4-x \geq 0, x-2 \geq 0 \Rightarrow \begin{cases} 4 \geq x \\ x \geq 2 \end{cases} \quad 2 \leq x \leq 4 \quad D_f = \{2, 4\}$

سؤال ٥

ب) $x^2+1 \neq 0, x^2 \neq -1 \quad D_f = \mathbb{R}$

ج) $x-4 \neq 0, x \neq 4, x-2 \geq 0, x \geq 2 \quad D_f = [2, \infty) - \{4\}$

د) $|x|+x^5 \neq 0, |x| \neq -x^5 \rightarrow \text{ممكن فني} \quad D_f = \mathbb{R} - 0$



الف) $\frac{2\pi}{3} \Rightarrow \begin{cases} -\frac{1}{2} \rightarrow \frac{1}{2} \\ \frac{\sqrt{3}}{2} \end{cases} \quad \frac{\pi}{6}, \frac{5\pi}{6}$

سؤال ١٠

ب) $\frac{11\pi}{6} \Rightarrow \begin{cases} \frac{\sqrt{3}}{2} \\ -\frac{1}{2} \end{cases} \rightarrow -\frac{\sqrt{3}}{2} \quad \frac{4\pi}{3}, \frac{5\pi}{3}$