

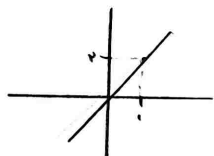
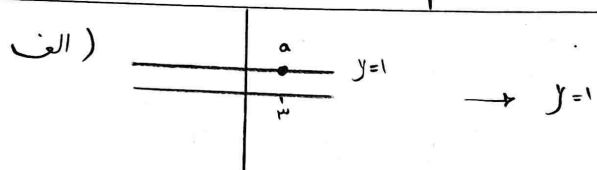
نام و نام خانوادگی: / / (لاشری) پاسنامه تشریحی تکلیف شماره ۳ کلاس: دفتر: ۴۴

الف) $\begin{cases} y_1^3 = 2x + x_1 \\ y_2^3 = 2x + x_2 \end{cases} \xrightarrow{x_1 = x_2} y_1^3 = y_2^3 \Rightarrow y_1 = y_2$ تابع هست ✓

ب) $\begin{cases} |y_1| = x + 3 - x_1^2 \\ |y_2| = x + 3 - x_2^2 \end{cases} \xrightarrow{x_1 = x_2} |y_1| = |y_2| \rightarrow y_1 = \pm y_2$ تابع نیست ✗

ج) $\sqrt{x-4}=0$ و $|y-2|=0 \rightarrow y=2, x=4 \rightarrow (4, 2)$ تابع هست ✓

د) $x=0 \rightarrow y = \frac{\pi}{2}, \frac{3\pi}{2}, \dots$ تابع نیست ✗



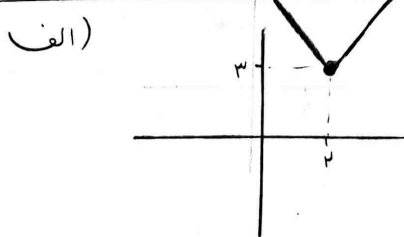
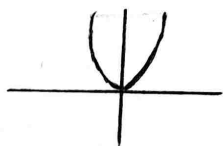
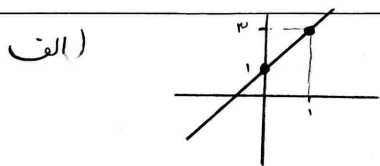
$y = ax + b \rightarrow 1 = 1 + b \rightarrow b = 0$

$y = x \Rightarrow y = 2x$

الف) $y = ax + b$ تابع مستقیم $y = x \rightarrow \begin{cases} a=1 \\ b=0 \end{cases} \rightarrow a + 2b = 1 + 2(0) = 1$

ب) $\text{طول راس سهی} \Rightarrow \frac{-a}{2(1)} = 2 \rightarrow a = -4$ $\Rightarrow a + 2b = -4 + 2(1) = -2$

ج) $\text{عرض راس سهی} \rightarrow 1 = 2(2)^2 + (-4)(2) + b \rightarrow 1 = 8 - 8 + b \rightarrow b = 1$ $\Rightarrow \frac{1}{2}$



$$\text{الف) } \frac{n+4}{(n-2n)(n+2n)} \Rightarrow D_f = \mathbb{R} - \{0\}$$

$$\text{ب) دلتا منفي / دلتا ندارد} \quad D_f = \mathbb{R}$$

$$\text{ج) دلتا منفي / دلتا ندارد} \quad D_f = \mathbb{R}$$

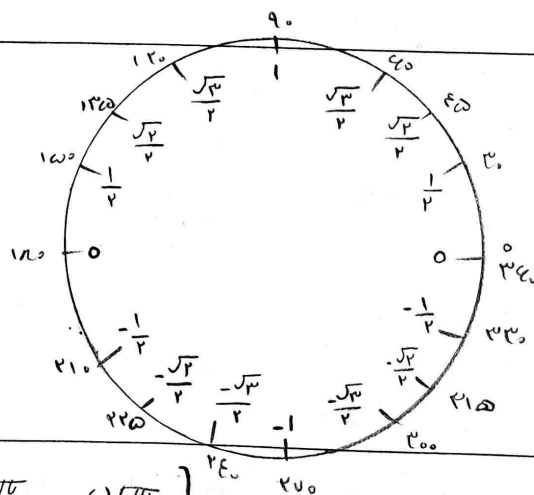
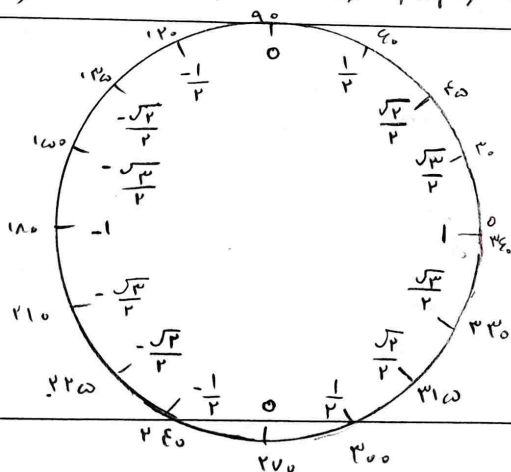
$$\text{د) } \frac{n+4}{(n^2-2n)(n^2+2n)} \Rightarrow D_f = \mathbb{R} - \{0, \pm 2\}$$

$$\text{الف) } 6-x \geq 0 \rightarrow x \leq 6, \quad x-2 \geq 0 \rightarrow x \geq 2 \quad [2, 6]$$

$$\text{ب) } D_f = \mathbb{R}$$

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

$$\text{د) } |x| + x \neq 0 \rightarrow |x| \neq -x \rightarrow D_f = \mathbb{R}^-$$



$$\text{الف) } -(-\frac{1}{r}) = \frac{1}{r} \rightarrow \left\{ \frac{\pi}{4}, \frac{5\pi}{4} \right\}$$

$$\text{ب) } -(\frac{\sqrt{3}}{r}) \rightarrow -\frac{\sqrt{3}}{r} \rightarrow \left\{ \frac{4\pi}{3}, \frac{2\pi}{3} \right\}$$