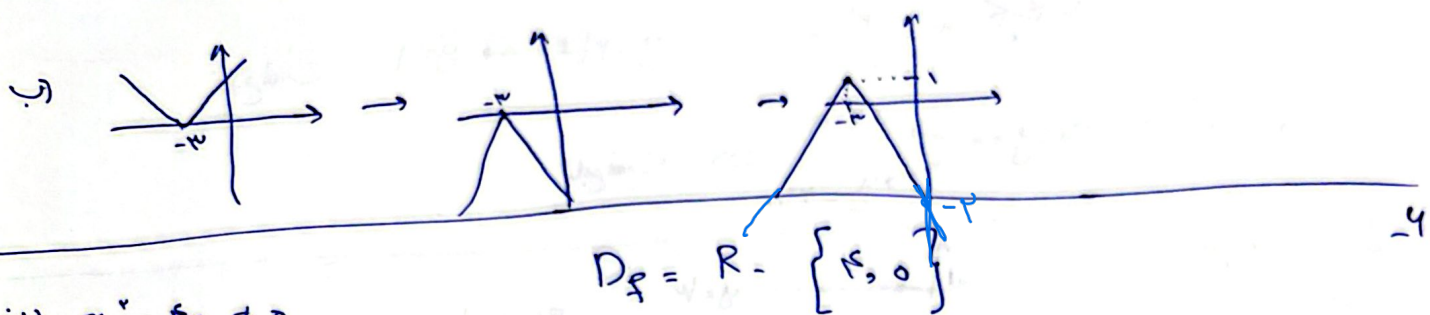
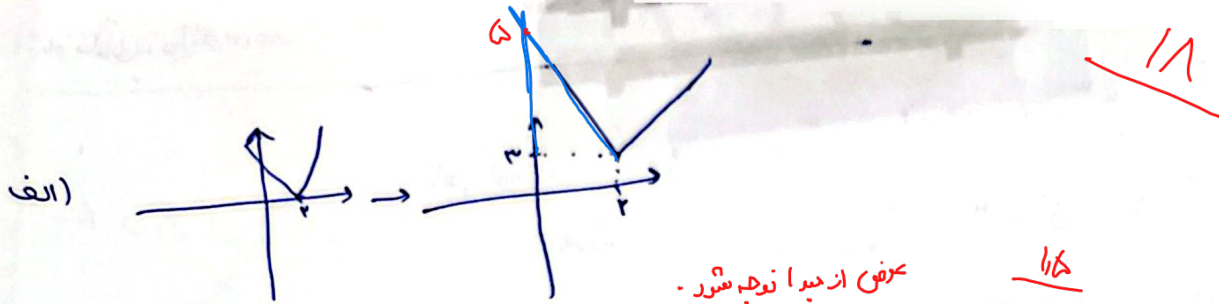




الف) $x^2 - 4x \neq 0$
 $x(x - 4) \neq 0 \rightarrow x \neq 4$
 $\rightarrow x \neq 0$

ب) $x^2 - 4x + 4 \neq 0 \quad \Delta \rightarrow b^2 - 4ac \Rightarrow 16 - 4(1)(4) = 16 - 16 = 0 = \Delta$

$\Delta < 0 \rightarrow D_f = R \quad (-\infty, +\infty)$

ج) $x^2 + x + 1 \neq 0 \quad \Delta \rightarrow b^2 - 4ac = 1 - 4(1)(1) = -3 = \Delta$ (P) ✓

$\Delta < 0 \rightarrow D_f = R \quad (-\infty, +\infty)$

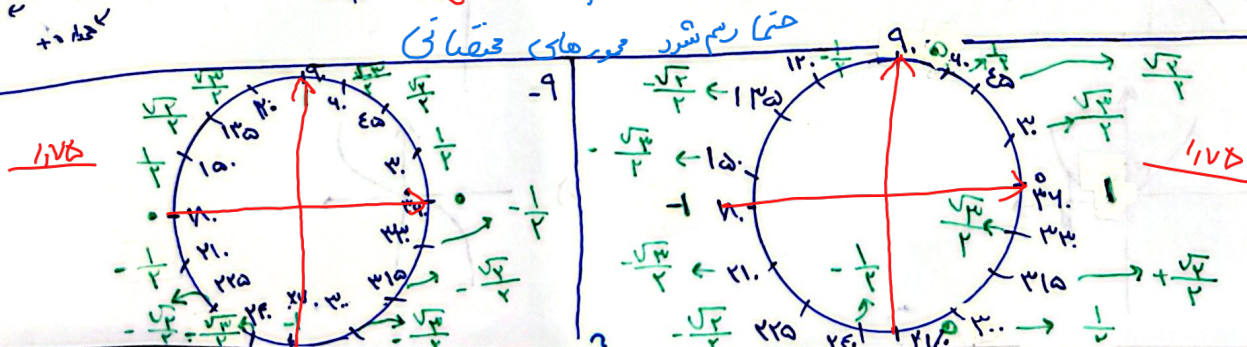
د) $x^2 - 4x^2 \neq 0 \rightarrow x^2(x^2 - 4) \neq 0$ $\frac{-2}{+} \frac{0}{-} \frac{2}{+}$ $D_f = R - \{-2, 0, 2\}$

الف) $4 - x \geq 0 \Rightarrow x \leq 4$, $x - 2 \geq 0 \Rightarrow x \geq 2$ $D_f = [2, 4] \rightarrow$ حتماً نمودار شود

ب) $x^2 + 1 \neq 0$ $D_f = R$ ✓

ج) $x - 2 \geq 0 \Rightarrow x \geq 2$, $x - 4 \neq 0 \rightarrow x \neq 4$ $D_f = [2, 4) \cup (4, +\infty)$

د) $|x| + x^2 \neq 0$ $D_f = R - \{0\}$



$$y_1^* = \gamma_1^* \Gamma + \eta_1$$

$q_1 = q_2 = q_3$

$$y_T^w = r_T y + q$$

تعريف رياضی

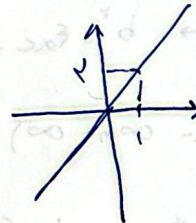
ج) $x=4$ لے کر $\Rightarrow \sqrt{x-4} + |y-2| = 0 \Rightarrow |y-2| = 0 \rightarrow y=2$ تابع است

د) $x=0$ $\hat{u} \Rightarrow \cos y = 0 \rightarrow y = \pi \Rightarrow$ تابع منفی
 $\rightarrow y = 2\pi$

$$f(x) = 1$$

b) $y = ax + b \Rightarrow y = r(x) + b \Rightarrow b = 0$

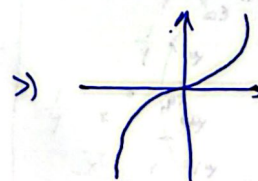
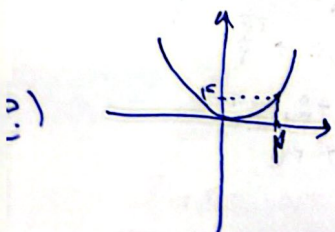
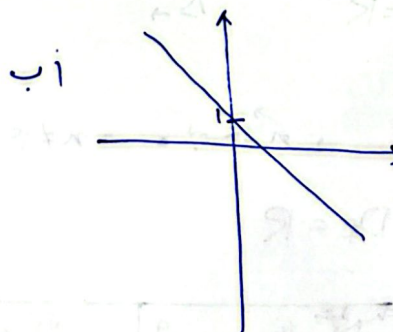
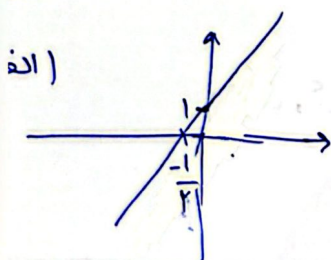
Ex ② $y = \sqrt{x}$



الف $a=1, b=0 \Rightarrow 1 + \cancel{1} = 1$ $a+2b = \boxed{1}$

$$\therefore \frac{-b}{r_a} = r \Rightarrow \frac{-b}{r_a} = r \Rightarrow \frac{-a}{r} = r \Rightarrow \boxed{a = -r} \rightarrow l = \frac{-r}{-1} + b \Rightarrow b = a$$

$$a + 1b \rightarrow -r + 1. = \boxed{4}$$



الف) $\cos \frac{\pi}{4} ? \rightarrow -\frac{1}{\sqrt{2}} \xrightarrow{\text{مربع}} \frac{1}{2} \rightarrow \frac{1}{2} \sin \frac{\pi}{2} \xrightarrow{\text{حل}} \frac{5\pi}{4}, \frac{7\pi}{4}$

ب) $\cos \frac{11\pi}{4} \rightarrow \frac{\sqrt{2}}{2} \xrightarrow{\text{مربع}} \frac{1}{2} \rightarrow -\frac{\sqrt{2}}{2} \sin \frac{\pi}{2}, \frac{3\pi}{2} \rightarrow \frac{7\pi}{4}, \frac{5\pi}{4}$