

۱۸،۲۵

کلاس دهم سبب

نام و نام خانوادگی: ارمیا ابراهیمی

باستفاده ششیمین نقطه شماره ۳

✓ $y^2 - x = 2x^2 \rightarrow y^2 = 2x^2 + x \rightarrow \begin{cases} y_1^2 = 2x_1^2 + x_1 \\ y_2^2 = 2x_2^2 + x_2 \end{cases} \xrightarrow{x_1=x_2} y_1^2 = y_2^2 \rightarrow y_1 = y_2$ تابع است. ۱

✓ $|y| + x^2 = x + 3 \rightarrow |y| = -x^2 + x + 3 \xrightarrow{x=0} |y| = 3 \Rightarrow y = \pm 3$ تابع نیست

✓ $\sqrt{x-4} + \sqrt{y-1} = 0 \rightarrow \begin{cases} x-4=0 \\ y-1=0 \end{cases} \Rightarrow \begin{cases} x=4 \\ y=1 \end{cases}$ تابع است

✓ $x = \cos y \xrightarrow{x=0} 0 = \cos y \Rightarrow y = \frac{\pi}{2}, \frac{3\pi}{2}$ تابع نیست

✓ $|x| = 1 \Rightarrow y = 1$ تابع نیست

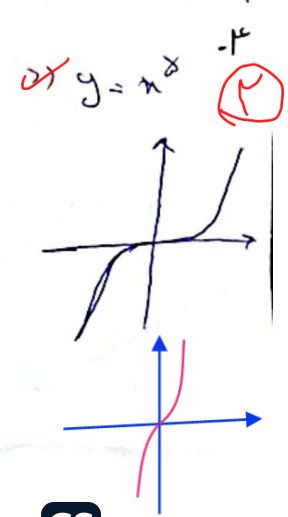
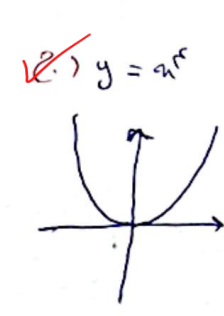
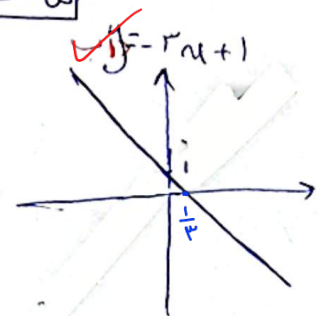
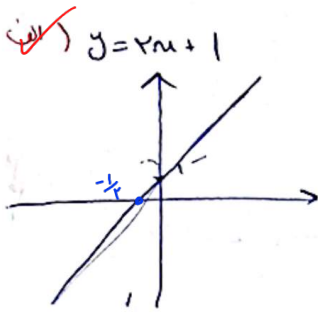
✓ $|x| = 1 \Rightarrow y = mx + b \xrightarrow{m=1} y = x + b \xrightarrow{(1,2)} 2 = 1 + b \Rightarrow b = 1 \Rightarrow y = x + 1$

✓ $y = ax + b, a + b = 1 \rightarrow 1 + 2(0) = 1$ تابع خطی

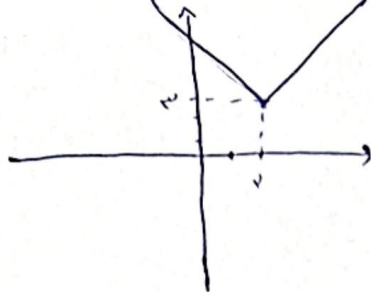
✓ $x = ax + b, a \neq 1, b = 0 \rightarrow x = 1x + 0 \Rightarrow x = x$

✓ $y = ax^2 + bx + c, \min |y|, a + b = 1 \rightarrow -1^2 + 2(0) = -1$

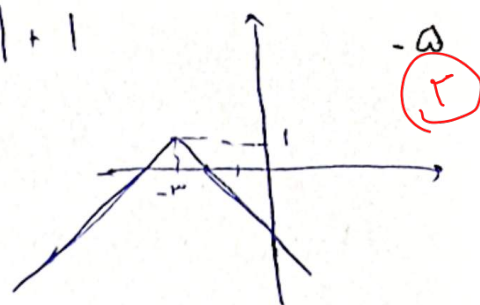
→ ext $\begin{cases} -\frac{b}{2a} \\ -\frac{\Delta}{4a} \end{cases} \rightarrow \begin{cases} -\frac{b}{2a} = 1 \rightarrow -b = 2a \xrightarrow{a=1} -b = 2 \Rightarrow b = -2 \\ -\frac{\Delta}{4a} = 1 \rightarrow -\frac{b^2 - 4ac}{4a} = 1 \xrightarrow{a=1, b=-2} -\frac{4 - 4c}{4} = 1 \rightarrow -1 + c = 1 \Rightarrow c = 2 \end{cases}$



الف) $y = |m+1| + 1$



ب) $y = |m+1| + 1$



الف) $y = \frac{m+1}{m^2-4m} \Rightarrow D_f = \mathbb{R} - \{0, 4\}$

ب) $y = \frac{m+1}{m^2+m+1} \Rightarrow D_f = \mathbb{R}$

الف) $y = \frac{m+1}{m^2-4m} \Rightarrow D_f = \mathbb{R}$

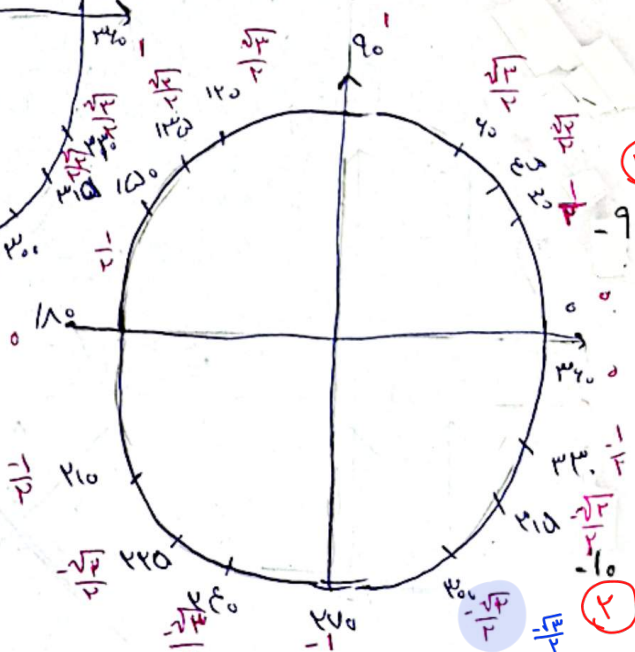
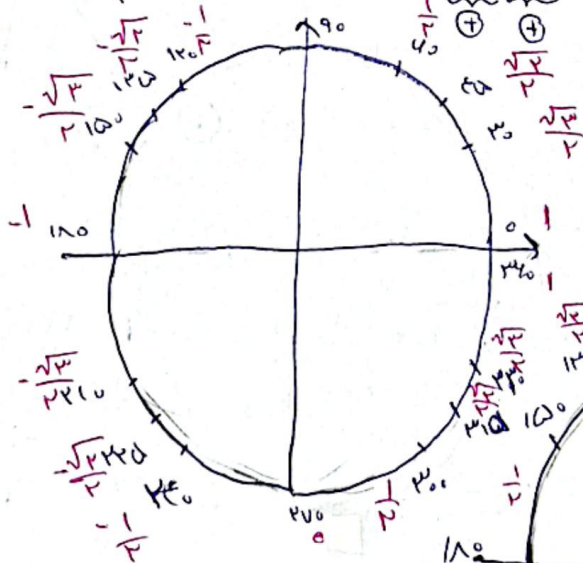
ب) $y = \frac{m+1}{m^2-4m} \Rightarrow D_f = \mathbb{R} - \{0\}$

الف) $y = \frac{\sqrt{4m+1} + \sqrt{m-1}}{4-m} \Rightarrow D_f = [1, 2]$

الف) $y = \frac{m+1}{m^2-4m} \Rightarrow D_f = \mathbb{R}$

ب) $y = \frac{\sqrt{m-1}}{m-1} \Rightarrow D_f = [1, \infty)$

الف) $y = \frac{m+1}{m^2-4m} \Rightarrow D_f = \mathbb{R} - \{0\}$



الف) $\cos \frac{2\pi}{4} \rightarrow \sin \frac{\pi}{4}, \frac{\pi}{4}$

ب) $\cos \frac{11\pi}{4} \rightarrow \sin \frac{5\pi}{4}, \frac{5\pi}{4}$