

(فاطمه ماسمی)

«بہ نام خدا»

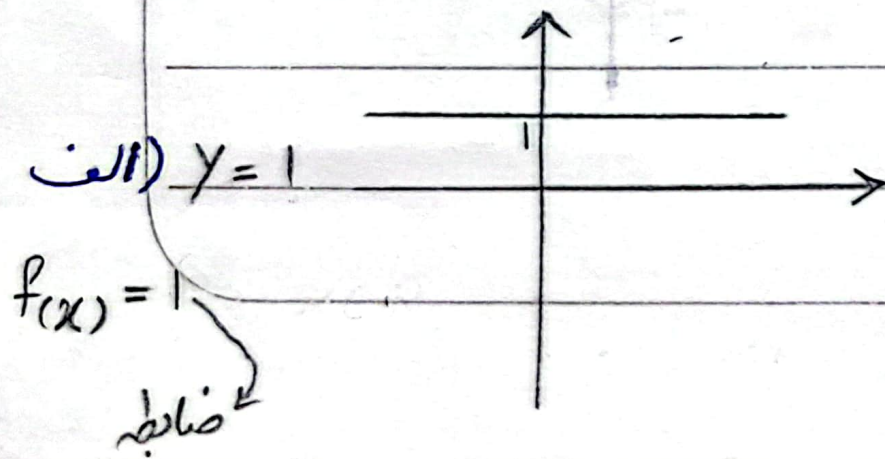
تکلیف شماره ۳

الف) $y_1'' = 2x_1^2 + 2x_1$ $x_1 = x_2 \rightarrow y_1'' = y_2'' \rightarrow y_1 = y_2$ تابع ✓ (1)

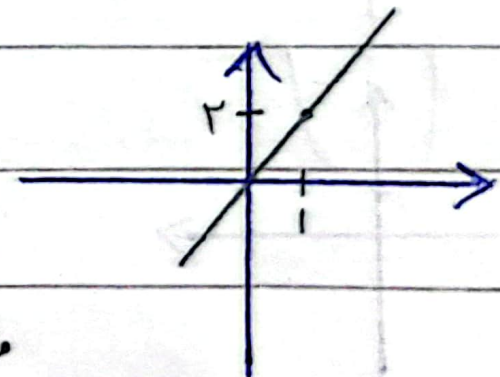
ب) $y_2'' = 2x_2^2 + 2x_2$ $x = 0 \rightarrow |y| = 2 \rightarrow y = \pm 2$ تابع ✗

ج) $\sqrt{x-1} + |y-2| = 0 \Rightarrow x-1=0 / y-2=0 \rightarrow f = \{(1, 2)\}$ تابع ✓

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



ب) $y = ax + b$
 $a > 0$
 $r = r + b$
 $b = 0 \rightarrow$ مبدأ
ضابطہ $= f(x) = rx$

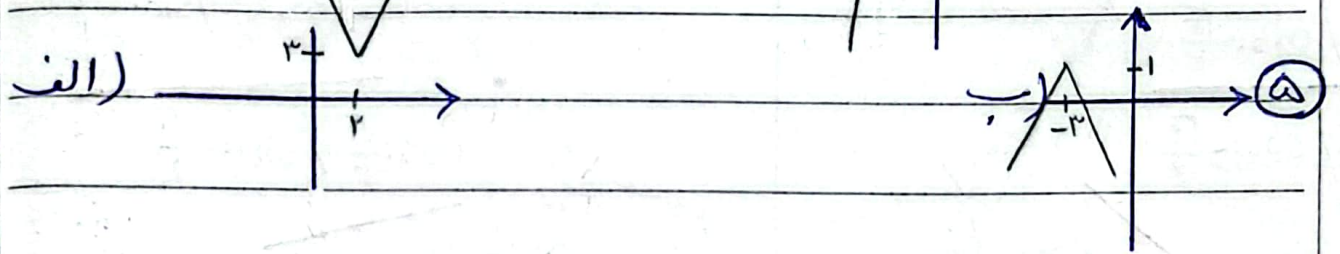
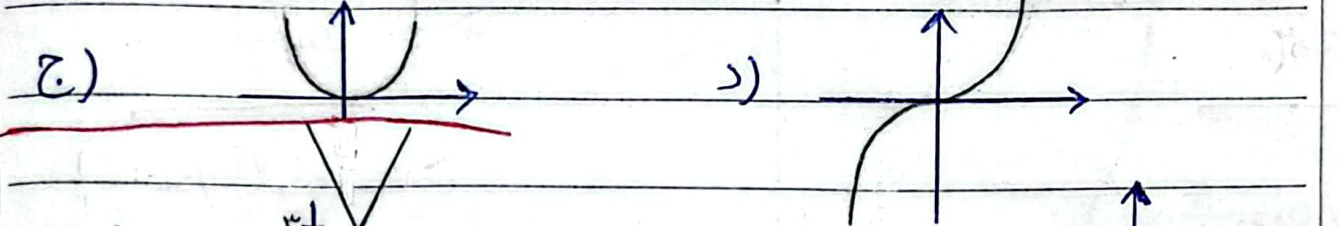
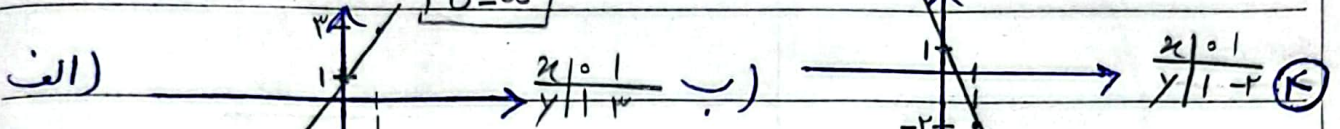


الف) $y = ax + b \rightarrow a = 1 \rightarrow a + rb = 1 + 0 = 1$
 $b = 0$

(3)

ب) $-\frac{b}{ra} = r \rightarrow -b = ra \rightarrow b = -ra \rightarrow b = -1 \times 1 = -1 \rightarrow a = -r$
 $a + rb = -1 + (1 \times 1) = 0$

$y = ax^r + bx + b$
 $1 = 1 + (-1 \times 1) + b$
 $b = 1$



الف) $x^2 - 4x \neq 0 \rightarrow x(x - 4) \neq 0 \rightarrow \begin{matrix} x \neq 0 \\ x \neq 4 \end{matrix} \Rightarrow D_f = \mathbb{R} - \{0, 4\}$

ب) $4 - \frac{4 \times 1 \times 1}{-4} < 0 \Rightarrow$ ریشه ندارد $D_f = \mathbb{R}$

ج) $1 - 4 \times 1 \times 1 < 0 \Rightarrow$ ریشه ندارد $D_f = \mathbb{R}$

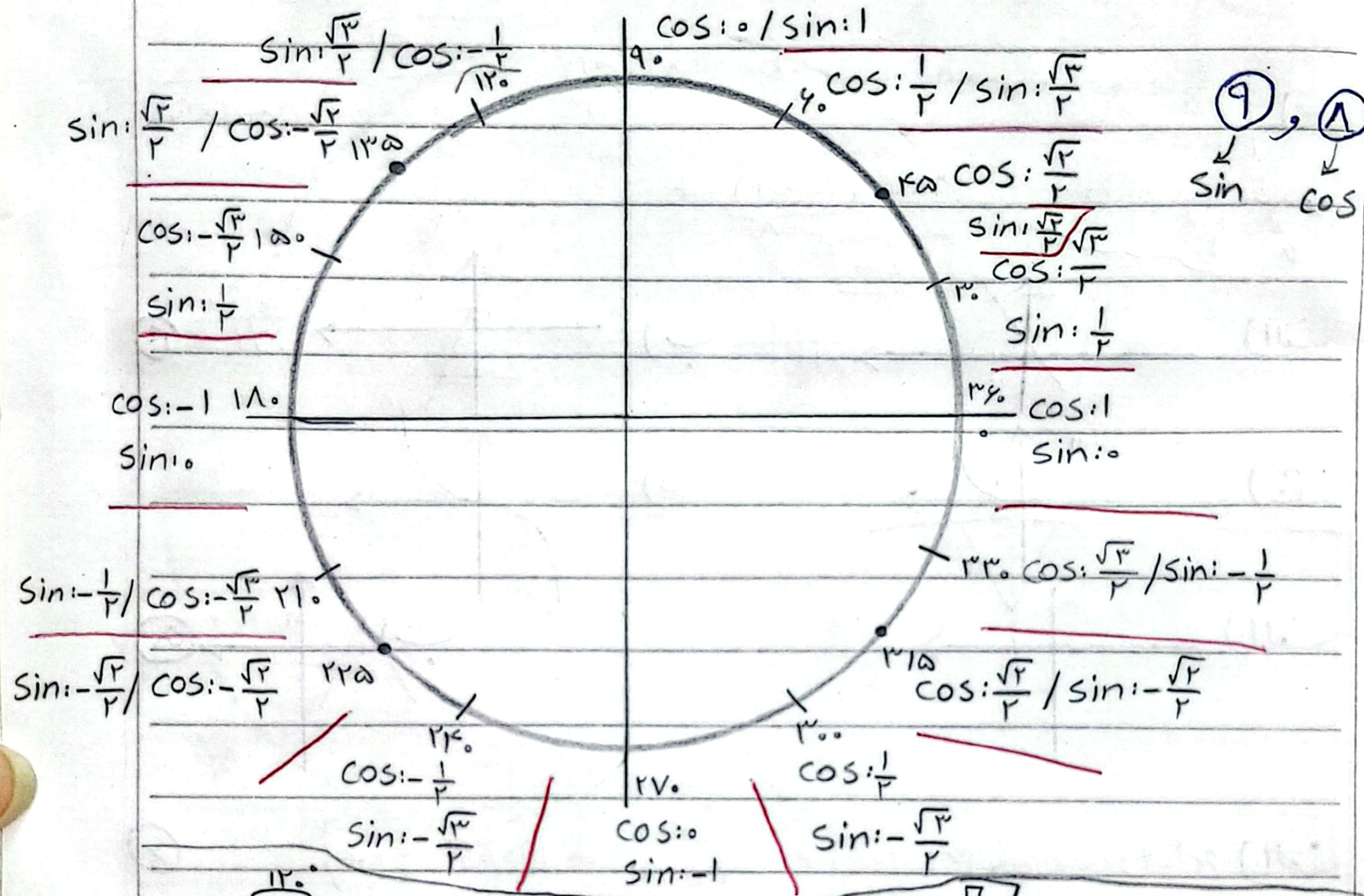
د) $x^2(x^2 - 4) = x^2(x - 2)(x + 2) \neq 0 \rightarrow \begin{matrix} x \neq 0 \\ x \neq 2 \\ x \neq -2 \end{matrix} \Rightarrow D_f = \mathbb{R} - \{0, \pm 2\}$

الف) $4 - x > 0 \quad x - 2 > 0$
 $\boxed{4 > x} \cap \boxed{x > 2} \rightarrow 2 < x < 4$
 $D_f = [2, 4]$

ب) $x^2 + 1 > 0 \Rightarrow D_f = \mathbb{R}$

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

$$2) |z| + z^r \geq 0 \leadsto |z| + z^r \neq 0 \Rightarrow z \neq 0 \quad D_f = \mathbb{R} - \{0\}$$



الف) $\cos \frac{2\pi}{3} = -\frac{1}{2} \xrightarrow{\text{مقابل}} \frac{1}{2} \quad \sin \alpha = \frac{1}{2} \rightarrow \alpha = \frac{\pi}{6}$

ب) $\cos \frac{11\pi}{6} = \frac{\sqrt{3}}{2} \xrightarrow{\text{مقابل}} -\frac{\sqrt{3}}{2} \quad \sin \alpha = -\frac{\sqrt{3}}{2} \rightarrow \alpha = \frac{4\pi}{3}$