

10

(الف)

$$-\cos \frac{\pi}{4} = ? \quad \frac{1}{r} \sin \frac{\pi}{4} \Rightarrow \frac{\pi}{4}, \frac{5\pi}{4}$$

120° $120^\circ, 240^\circ$

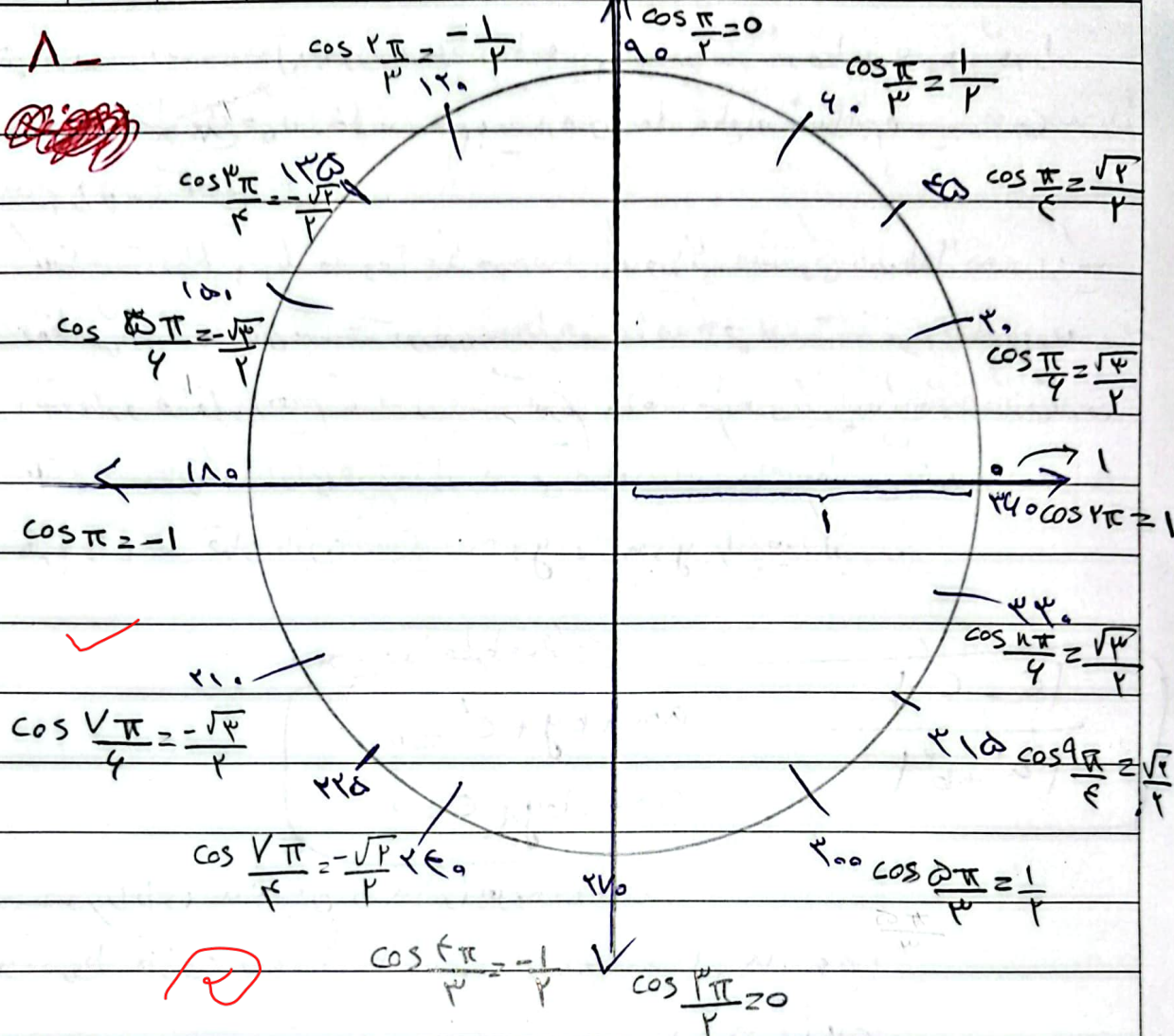
(ب)

$$-\cos \frac{11\pi}{4} = -\frac{\sqrt{2}}{2} \Rightarrow \frac{7\pi}{4}, \frac{5\pi}{4}$$

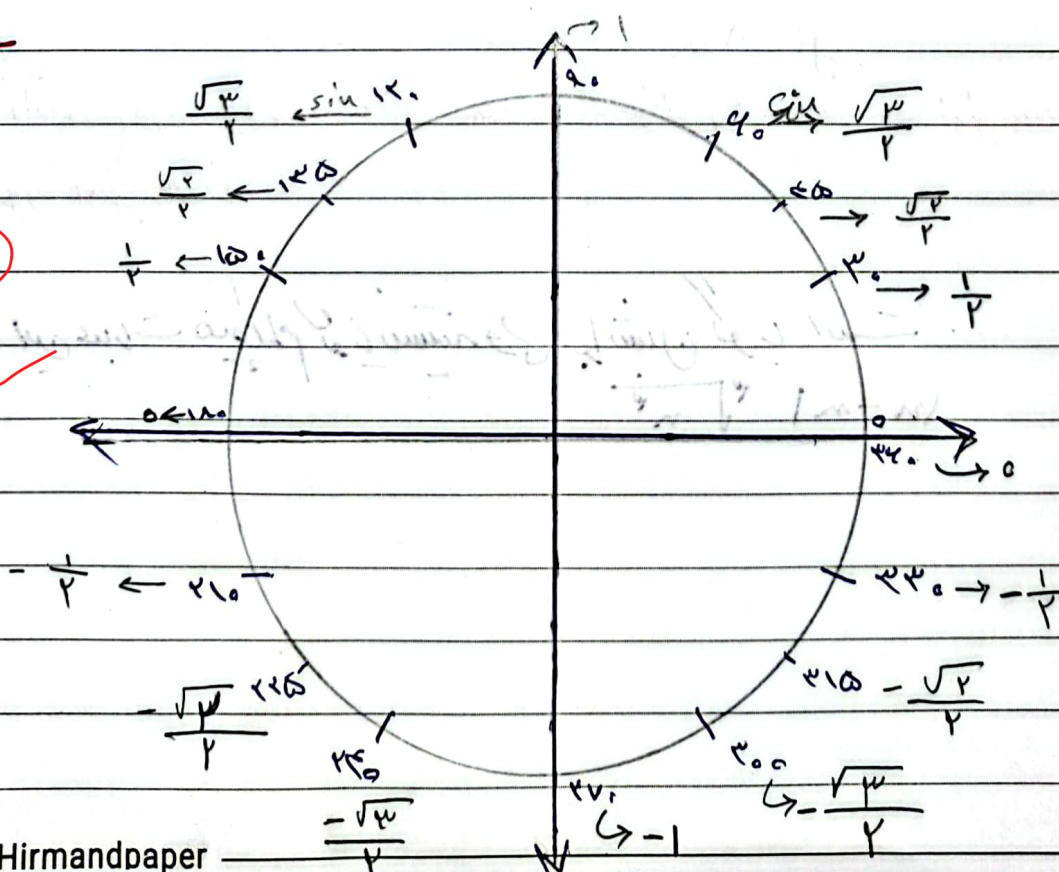
$240^\circ, 120^\circ$

(ج) ✓

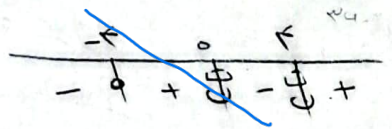
1-



9-



$$4- \text{الف}) y = \frac{n+4}{n^2-4n} = \frac{n+4}{n(n-4)}$$



$$D_f = \mathbb{R} - \{0, 4\}$$

نقین علامت چرا؟

$$ب) y = \frac{n+4}{n^2-7n+14}$$

Δ منفی همیشه ریشه ندارد

$$D_f = \mathbb{R}$$

1, 5

$$ج) y = \frac{n+4}{n^2+n+4}$$

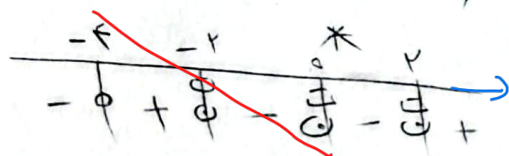
$$D_f = \mathbb{R}$$

$$د) y = \frac{n+4}{n^2-4n^2}$$

$$b^2-4ac = 1-14 = -13$$

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

$$(n^2-4n)(n^2+4n)$$



نقین علامت چرا؟

$$V- \text{الف}) y = \sqrt{4-m} + \sqrt{m-2}$$

$$4-m \geq 0$$

$$m-2 \geq 0$$

$$m \leq 4$$

$$m \geq 2$$

$$D_f = [2, 4]$$

$$ب) y = \frac{3m+1}{m^2+1}$$

$$D_f = \mathbb{R}$$

ریشه ندارد

$$ج) y = \frac{\sqrt{m-2}}{n-4}$$

$$m-2 \geq 0$$

$$m \geq 2$$

$$D_f = \mathbb{R} - \{(-\infty, 2), 4\}$$

$$د) y = \frac{4m+3}{|m|+m^2}$$

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

ریشه ندارد

۳- بررسی تراز

الف) $y^3 - m = 2m^2$

$y_1^3 = 2m_1^2 + m_1$
 $y_2^3 = 2m_2^2 + m_2$
 $\Rightarrow y_1 = y_2 \Rightarrow y_1 = y_2$ تابع مستقیم

ب) $|y| + m^2 = m + 3$

$\Rightarrow |y| = 3 \Rightarrow y = \pm 3$ تابع نیست

ج) $\sqrt{m-4} + |y-2| = 0$

$m-4=0 \quad y-2=0$
 $m=4 \quad y=2$

د) $m = \cos y$

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

الف) $y = 1 \Rightarrow$

ب) $a=2$ دارای ۱

$y = am + b \rightarrow y = 2m$

۳- مقدار a, b

الف) $y = am + b \rightarrow$ تابع مستقیم

$y = m$

$a=1 \quad b=0 \quad a+b \xrightarrow{a=1, b=0} 1$

ب) $y = m^2 + am + b$

$\min \left| \frac{y}{m} \right| \Rightarrow \begin{cases} \frac{b}{a} = 2 \rightarrow ca + b = 0 \\ 1 = f + ca + b \rightarrow ca + b = -1 \end{cases}$

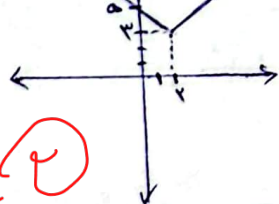
$as = \frac{-b}{ca} = \frac{-a}{1} = -a = -2 \rightarrow a = -2$

$as = 1 \rightarrow (2)^2 - f(2) + b = 1 \rightarrow b = 5$

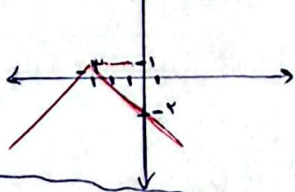
$a+b = -2+2 = 0$

۴-

الف) $y = |m-2| + 3$



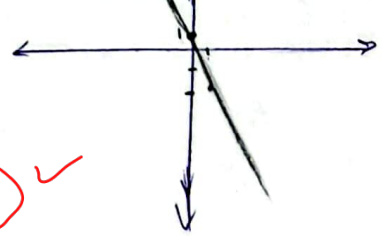
ب) $y = -|m+3| + 1$



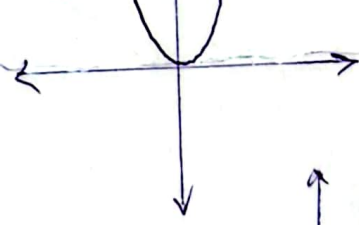
الف) $y = 2m + 1$



ب) $y = -3m + 1$



ج) $y = m^2$



د) $y = m^5$

