

الف) $x + 2y = -4$
 $3x - y = 9$

$$\begin{cases} x + 2y = -4 \\ 4x - 2y = 18 \end{cases} \xrightarrow{\text{مابوداری}} \begin{cases} x + 2y = -4 \\ 5x = 14 \end{cases} \rightarrow x = \frac{14}{5}$$

$\rightarrow \frac{x}{y} = -\frac{2}{3}$

ب) $\left(\frac{1}{x} - \frac{1}{y} = -1\right)$ $\frac{x-1}{x} - \frac{y-1}{y} = -1$ $\frac{x-1}{x} - \frac{y-1}{y} = -1$
 $1 \times \frac{x-1}{x} = -1 - \frac{y-1}{y} = -1 \rightarrow -\frac{y-1}{y} = 1 \rightarrow y = -1$

$\frac{-1}{-1} = \frac{1}{1}$ $m = -2$
 $\frac{-1}{-1} = \frac{1}{1}$ $\rightarrow \frac{-2}{x} = 4$ $x = -\frac{1}{2}$

$a \rightarrow -3$
 $2a \rightarrow -4$

$f(a) + 2f(2) = 3f(1)$
 $-4 + 2b = -4 \rightarrow 2b = 0 \rightarrow b = 0$

$m^2 - 3m = -2 \rightarrow m^2 - 3m + 2 = 0 \rightarrow (m-1)(m-2) = 0$

$m=1$ غلط
 $m=2$ غلط

هیچ مقدار m

خط عمود (موازی با محورهای) می کشیم و مرکز در یک نقطه با هم قطع می شود.

الف) \times ب) \checkmark ج) \times د) \checkmark

الف) $y = -\sqrt{x+1}$ $y_1 = -\sqrt{x+1}$ $y_2 = -\sqrt{x+1}$ $\rightarrow y_1 = y_2$ تابع هست

ب) $x = \frac{y}{\sqrt{1-y^2}}$ $x=1$ $y = \sqrt{1-y^2} \rightarrow y^2 = 1 - y^2 \rightarrow 2y^2 = 1 \rightarrow y^2 = \frac{1}{2} \rightarrow y = \pm \frac{1}{\sqrt{2}}$ تابع نیست

الف) $|y| = n \xrightarrow{n=1} 1 = |y| \rightarrow y = \pm 1 \rightarrow$ تابع صبيحة

ب) $y^{\mu} + \mu y^{\mu} + \mu y + n^{\mu} + n = 0$

$(y+1)^{\mu} - 1 \quad (y+1)^{\mu} = -n^{\mu} - n + 1 \rightarrow (y+1)^{\mu} = (y_{r+1})^{\mu}$ تابع صبيحة

$f(\sqrt{\mu} - r) = \frac{(\sqrt{\mu} - r)^{\mu} + f(\sqrt{\mu} - r) + a}{(\sqrt{\mu} - r)^{\mu} + f(\sqrt{\mu} - r) + v} = \frac{\cancel{\mu} + \cancel{r} - \cancel{f} \sqrt{\mu} + \cancel{f} \sqrt{\mu} - \lambda + a}{\cancel{\mu} + \cancel{r} - \cancel{f} \sqrt{\mu} + \cancel{f} \sqrt{\mu} - \lambda + v} = \frac{f}{-v} = \frac{f}{-v} = \frac{f}{-v}$

$\boxed{= \frac{f}{-v}}$

$\begin{cases} -1 \\ -r \end{cases} \quad \begin{aligned} -f - \mu(-1) + a &= 0 \\ -f + \mu + a &= 0 \\ -1 + a &= 0 \rightarrow a = 1 \end{aligned}$

$\begin{aligned} -f &= -1 - a + b \\ -f &= -1 - 1 + b \rightarrow b = -r \end{aligned}$

$\begin{aligned} y - r^{\mu} + 1 &= 0 \\ y &= r^{\mu} - 1 \end{aligned}$

$\begin{aligned} x^{\mu} + \mu - r &= \mu - 1 \\ x^{\mu} - \mu - 1 &= 0 \end{aligned}$

$\boxed{1} = \frac{r}{r} = \frac{1 + \sqrt{a} + 1 + \sqrt{a}}{r} = \frac{1 + \sqrt{a}}{r} \leftarrow 1 - f(1 - r) = a$

$a + b = ra$

$a - rb + 1 = a + b$

$-rb = -1 \rightarrow b = \frac{1}{r}$

$\frac{f n^{\mu} - a n + c + 1}{b n + r} = n$

$b n^{\mu} + r n = f n^{\mu} - a n + c + 1$

$b = f$

$-a = r$

$a = -r$

$c = -1$

$a + b + c = 0$