

پرنیان باقری / تالیف شماره ۲۷ / لاس هم دفتر A

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الف)  $(1, x, y), (1, x, y), (1, x, y)$

$$\begin{cases} 3x - y = 9 \\ x + 2y = -4 \end{cases} \Rightarrow x = 2, y = (-3) \rightarrow \frac{x}{y} = \frac{-2}{3}$$

ب)  $(-1, -3), (\frac{1}{x} - \frac{1}{y}, \frac{5}{x} - \frac{1}{y})$

$$\begin{cases} \frac{1}{x} - \frac{1}{y} = (-1) \\ \frac{5}{x} - \frac{1}{y} = (-3) \end{cases} \rightarrow \begin{cases} y - x = -xy \\ 5y - 1x = -3xy \end{cases} \rightarrow \begin{cases} -5y + 5x = 5xy \\ 5y - 1x = -3xy \end{cases}$$

$$\Rightarrow -2x = 2xy \rightarrow y = -1 \rightarrow x = \frac{-1}{4}$$

$$\frac{x}{y} = \frac{1}{4}$$

f =  $\int_{-3}^2 (a, b) \rightarrow (1, a+1), (1, -2), (2, b)$

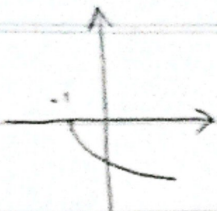
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$$a+1 = -2 \rightarrow a = -3$$

$$\int_{(-3)}^2 + 2 \int_{(2)}^2 = 4 \int_{(1)}^2 \rightarrow -4 + 2b = -4 \rightarrow b = 0$$



الف)  $y = -\sqrt{x+1}$  ✓



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ب)  $x = \frac{y}{\sqrt{1-y^2}}$  ✓

مثال نقى  $\rightarrow x=1 \rightarrow y = \sqrt{1-y^2} \rightarrow y^2 = 1-y^2 \rightarrow y = \pm \sqrt{\frac{1}{2}}$

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الف)  $|y| = x$  ✓

مثال نقى  $x=1 \rightarrow y = \pm 1$

ب)  $y''' + 1''y'' + 1'y + x'' + x = 0$  ✓

$(y'' \oplus y)$  →

$$f(x) = \frac{x^p + px + a}{x^p + px + v} = \frac{(x+1)^p + 1}{(x+1)^p + v}$$

V

$$\frac{f}{(x+1)^p} = \frac{p+1}{p+p} = \frac{p}{p}$$

$$y = px + a \quad y = -1^p x - v$$

$$-1 = -1^p(-1) + a \rightarrow a = -v$$

A

$$f(x) = x^p + ax + b \quad f(x) = x^p - vx - 1$$

$$-1 = -1 + v + b \rightarrow b = -1$$

$$f(x) = y \rightarrow x^p - vx - 1 = -1^p x - v$$

$$x^p - vx - 1^p = 0$$

$$x^p - vx - 1^p = (x+1)(x^p - x - 1^p)$$

$$\downarrow \quad \downarrow \quad \frac{1 \pm \sqrt{1^p}}{2} \rightarrow y = 0$$

$$x = (-1) \rightarrow \frac{1 + \sqrt{1^p} - 1 - 1^p}{2}$$

$$\rightarrow y = -1 + \frac{1 + \sqrt{1^p} - 1 - 1^p}{2} = 0$$

$$\text{bleib } \frac{1 + \sqrt{1^p} + 1 - \sqrt{1^p}}{2} = 1$$

$$a + b = 1 \quad a = a - 1b + 1$$

$$\begin{array}{ccc} \underbrace{\phantom{a=b}} & \downarrow & \\ a=b & -a+1 & \Rightarrow a = \frac{1}{1} \end{array}$$

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$$\frac{f}{(x)} = \frac{fx^2 - ax + c + 1}{bx + 1}$$

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$$x=y=1 \rightarrow \frac{1-a+c+1}{b+1} = 1 \rightarrow \begin{array}{l} a+c = b+1 \\ c-a-b = -1 \end{array}$$

$$x=y=2 \rightarrow \frac{4-2a+c+1}{2b+1} = 2 \rightarrow \begin{array}{l} 4-2a+c = 2b+2 \\ -2a+c-2b = -2 \end{array}$$

$$x=y=3 \rightarrow \frac{9-3a+c+1}{3b+1} = 3 \rightarrow \begin{array}{l} 9-3a+c = 3b+3 \\ -3a+c-3b = -6 \end{array}$$

$$\Rightarrow \begin{cases} c-a-b = -1 \\ c-2a-2b = -2 \\ c-3a-3b = -3 \end{cases}$$

$$-1+a+b = -1+2a+2b$$

$$-a+b = a+b \Rightarrow a=0$$

$$c-3a-3b = c-3(0-3b)-3b = c-2V = -3$$

$$c = (-1)$$

$$\Rightarrow a+b = -1 \Rightarrow a = (-3), b = 2$$

$$\rightarrow a+b+c = 0$$