

الف - $(9, x+2y) = (3x-y-4)$

$$\begin{aligned} 3x - y &= 9 \quad \times 2 \rightarrow 6x - 2y = 18 \\ x + 2y &= -2 \end{aligned}$$

$$\frac{6x - 2y = 18}{x + 2y = -2} \rightarrow 5x = 14 - 2x = 2$$

$$x + 2y = -2$$

$$2 + 2y = -2 \rightarrow 2y = -4 \rightarrow y = -2$$

$$\frac{x}{y} = \frac{2}{-2} = \left(\frac{-1}{1}\right)$$

ب - $(-1, -3) = \left(\frac{1}{x} - \frac{1}{y}, \frac{5}{x} - \frac{4}{y}\right)$

$$\frac{1}{x} - \frac{1}{y} = -1 \quad \times (-2) \rightarrow \frac{-2}{x} + \frac{2}{y} = 2$$

$$\frac{5}{x} - \frac{4}{y} = -3 \quad \times (-2) \rightarrow \frac{-10}{x} + \frac{8}{y} = 6$$

$$\frac{-2}{x} + \frac{2}{y} = 2$$

$$\frac{-10}{x} + \frac{8}{y} = 6$$

$$\frac{-2}{x} - \frac{1}{y} = -1$$

$$\frac{1}{x} - (-1) = -1$$

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

$$\frac{5}{-\frac{1}{2}} - \frac{4}{y} = -3 \rightarrow -10 - \frac{4}{y} = -3 \rightarrow -\frac{4}{y} = 7 \rightarrow y = -\frac{4}{7}$$

تابع: $f = \{(a, 2a), (1, a+1), (1, -2), (2, b)\}$

* برای تابع در دوازده عدد از اول بیست عدد ها باید یک به یک جایگزین کرد.

$$f(0) + 2f(2) = 3f(1) \quad a+1 = 2$$

$$a = 1$$

$$f(0) + 2f(2) = 3f(1) \quad a+1 = 2$$

$$b = 0$$

$$2 - 2 + 2b = 3 \times 1 - 2$$

$$2 + 2b = 1$$

$$2b = -1 \rightarrow b = -\frac{1}{2}$$

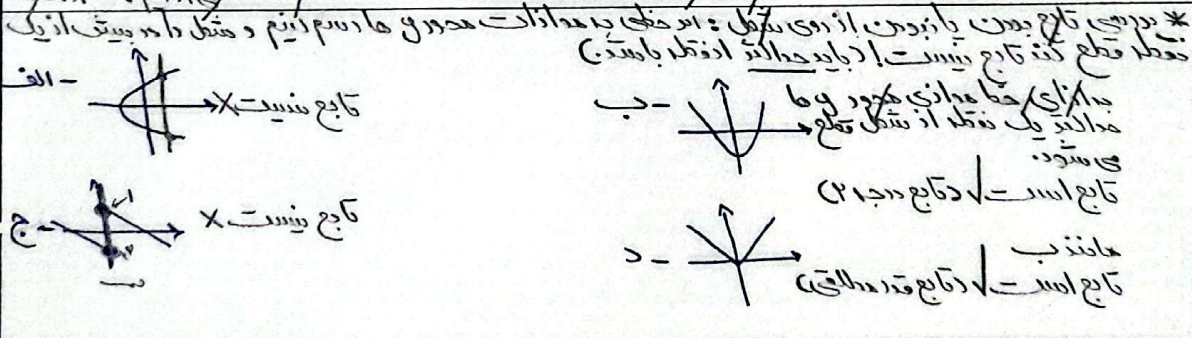
حداقل m؟ $f = \{(m^2-3m, -1), (2, 5), (m+1, 4), (2, 4), (m^2+2, 4m+1)\}$

* حافظه بکال تابع:

غ ق ق $m=1 \rightarrow (m+1, 4) = (2, 4)$

غ ق ق $m=2 \rightarrow (m+1, 4) = (3, 4)$

در این قسمت در حد برای m در نظر می گیریم: $m=1, 2$



الف - $y = -\sqrt{x+1}$

ب - $x = \frac{y}{1-y^2}$

تعریف:

$$x_1 = x_2 \rightarrow y_1 = -\sqrt{x+1} \rightarrow y_1 = y_2$$

$$x_1 = x_2 \rightarrow \frac{y_1}{1-y_1^2} = \frac{y_2}{1-y_2^2}$$

$$\frac{y_1^2}{1-y_1^2} = \frac{y_2^2}{1-y_2^2}$$

$$\frac{y_1^2}{1-y_1^2} = \frac{y_2^2}{1-y_2^2} \rightarrow y_1^2 = y_2^2 \rightarrow y_1 = \pm y_2$$

تابع نسبت $x = y^2$

∴ x is possible

$$g^k + k g^r + k y + x^k + x = 0$$

$$g^k + k g^r + k y = -x^k - x$$

$$g^k + k g^r + k y + 1 - 1 = -x^k - x$$

$$g^k + k g^r + k y + 1 = -x^k - x + 1$$

$$(g+1)^k = -x^k - x + 1$$

$$g+1 = \sqrt[k]{-x^k - x + 1}$$

$$g = \sqrt[k]{-x^k - x + 1} - 1$$

∴ x is possible

SI
Hans

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