

$$f(x) = \sqrt{(1-x)(1+x)} \quad \frac{x}{p} \mid \frac{-1}{q} + \frac{1}{q} - \frac{0}{f} = [-1, 1]$$

$$f = \{(-1, 0), (0, 1), (1, 0)\} \quad g = \{(-1, 1), (0, 2), (1, 1)\}$$

اعضای از $g(x)$ که کارهای

$$2g - 3f = \{(-1, 2), (0, 3), (1, 2)\} \quad \text{مجموع بردها} = 2 + 3 + 2 = 11$$

$$D_f = [2, +\infty) \quad f(x) = 2x - 1 \rightarrow f(x) = \{5, 7, 9, \dots\}$$

$$D_g = (-\infty, 3] \quad g(x) = \frac{1}{x}x + 3 \rightarrow g(x) = \{\frac{14}{3}, \frac{11}{3}, \frac{10}{3}, \dots\}$$

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

$$-\frac{x^2}{2} + x + 3 > \frac{3}{2} \rightarrow -\frac{x^2}{2} + x + \frac{3}{2} > 0 \xrightarrow{\times (-2)} x^2 - 2x - 3 < 0$$

$$(x-3)(x+1) < 0 \quad \frac{x}{p} \mid \frac{-1}{q} + \frac{3}{q} - \frac{0}{f} = D_f = (-1, 3) \quad \sqrt{b-a} = \sqrt{4} = 2$$

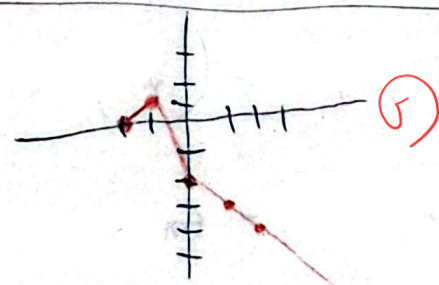
1	2	3
$-4x + 11$	$-2x + 4$	$2x - 2$
$\begin{bmatrix} 0 \\ 1 \end{bmatrix}$	$\begin{bmatrix} 2 \\ 1 \end{bmatrix}$	$\begin{bmatrix} 2 \\ 1 \end{bmatrix}$

معادله $g=2$ و $g=1$ را حل کنید

$$g = |x| - |x+1|$$

-1	0
$x+2$	$-x-2$
$\begin{bmatrix} -2 \\ 0 \end{bmatrix}$	$\begin{bmatrix} 1 \\ -2 \end{bmatrix}$

$$R_f = (-\infty, 1]$$



$$2x + y = x^2 + 5x + m \rightarrow x^2 + (5-y)x + m - y \rightarrow x = \frac{y-5 \pm \sqrt{25+y^2-10y-4(m-y)}}{2}$$

$$\rightarrow \sqrt{y^2 - 10y + 4y + 25 - 4m} \rightarrow y^2 - 4y + 25 - 4m \geq 0 \rightarrow \Delta \leq 0$$

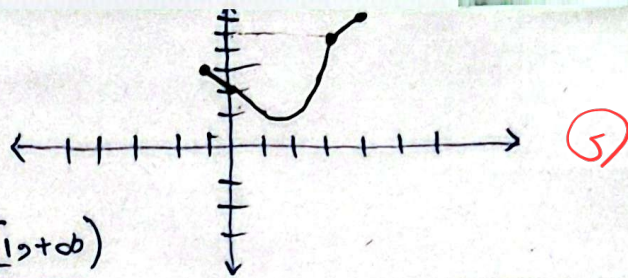
$$16 - 4(1)(25 - 4m) \leq 0 \rightarrow 16 - 100 + 16m \leq 0 \rightarrow 16m \leq 84$$

$$m \leq 5.25 \quad m = \{1, 2, 3, 4\}$$

$$m=4 \rightarrow \frac{x+5x+4}{x+1} = x+4, \quad \frac{x+1}{x+1} \text{ در } \mathbb{R} \text{ تعریف می‌شود}$$

$$\begin{array}{c|ccc} 0 & \mu & & \\ \hline -x+2 & x^2-2x+2 & x+2 & \\ \hline \begin{bmatrix} -1 \\ 2 \end{bmatrix} & \begin{bmatrix} 0 \\ 2 \end{bmatrix} \begin{bmatrix} 1 \\ 1 \end{bmatrix} \begin{bmatrix} 2 \\ 2 \end{bmatrix} & \begin{bmatrix} 2 \\ 2 \end{bmatrix} \begin{bmatrix} 2 \\ 6 \end{bmatrix} \begin{bmatrix} 4 \\ 4 \end{bmatrix} & \end{array}$$

$$R_f = [1, +\infty)$$



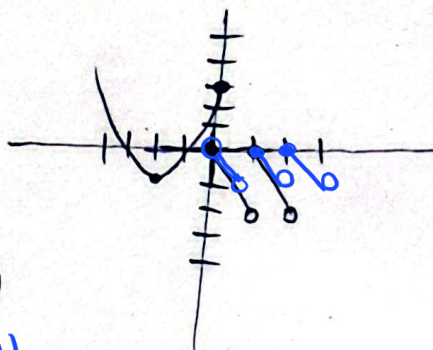
(7)

$$\begin{array}{c|c} 0 & \\ \hline x^2+4x+3 & [2x]-2x \\ \hline \begin{bmatrix} 0 \\ 2 \end{bmatrix} & \end{array}$$

$x = \frac{-b}{2a} = -2$
 $y_3 = -1$

$$R_f = (-2, +\infty)$$

$[-1, +\infty)$



(1)

$$2x+3 > 0 \rightarrow 2x > -3 \rightarrow x > -1.5 \rightarrow$$

برای اسم بیشترین مقدار برد یا همان ω
 رادانسه با ششم را مثال باید کسری مقدار
 یعنی هفت رادانسه با ششم پس $b = -1.5$

$\omega = a + 1 \rightarrow \boxed{a = 4}$
 $ab = \frac{\mu}{\nu} \times 4 = -4$

(5)

(10)

$$g(x) = f(x) + g(x) - f(x) = 2\sqrt{2+2\sqrt{1-x^2}} - 2(\sqrt{x+1} + 2\sqrt{1-x})$$

$$y = \frac{2(\sqrt{x+1} + 2\sqrt{1-x})}{4} - \frac{2\sqrt{2+2\sqrt{1-x^2}} - 2(\sqrt{x+1} + 2\sqrt{1-x})}{2} =$$

$$y = 2\sqrt{1-x} + \sqrt{x+1} - \sqrt{2+2\sqrt{1-x^2}} \rightarrow D_f = [-1, 1]$$

(5)

$$y \xrightarrow{x=1} 0$$

$$y \xrightarrow{x=0} 1$$

$$y \xrightarrow{x=-1} \sqrt{2}$$

$$R_f = [0, \sqrt{2}]$$