

۱۵، ۵

به خاطر خدا | تکلیف سری ۷ - دینا ارجمی

$$y = \sqrt{x f(x)} \Rightarrow x f(x) \geq 0 \Rightarrow x \geq -f(x)$$

افزودن به ترتیب مرتبه [۵ و ۰] و [۰ و -۵]

$$\Rightarrow D = [-5, 0] \cup [0, 5]$$

$$y = \sqrt{\frac{-x}{f(x)}} \Rightarrow \frac{-x}{f(x)} \geq 0 \Rightarrow f(x) \neq 0$$

$$\begin{aligned} x &= -4\sqrt{f(x)} \\ x &= -2\sqrt{f(x)} \\ x &= -1\sqrt{f(x)} \\ x &= 1\sqrt{f(x)} \end{aligned}$$

$$(-x) f(x) \Rightarrow f(x) \neq 0 \Rightarrow f(0) \neq 0$$

$$x=2 \Rightarrow f(2)=0$$

$$x=-2 \Rightarrow f(2) \geq 0$$

$$f(x) - 2f(2) = x^2 - 3x + 2 \Rightarrow f(2) \Rightarrow$$

$$x=4 \quad x=2$$

$$x=4 \Rightarrow f(4) - 2f(-2) = 1 \Rightarrow f(4) = -12$$

$$f(4) = -12$$

$$f(2) - 2f(2) = 2 \Rightarrow f(2) = -2$$

$$f(-2) - 2f(4) = 12 \Rightarrow f(-2) = -10$$

$$f(-2) = -10$$

$$f(x) = x^2 - 3x + 2 \Rightarrow f(-2) = 10$$

$$f(5) = 5 - \sqrt{5} \Rightarrow f(f(5)) = 2(5 - \sqrt{5}) + 3 = 13 - 2\sqrt{5}$$

$$f(f(5)) + f(f(1)) = (13 - 2\sqrt{5}) + (5 - \sqrt{5}) = 18 - 3\sqrt{5}$$

$$f(5) = 5 - \sqrt{5} \Rightarrow f(2) = 2 \Rightarrow f(2) = 2$$

$$2 + 2 = 4$$

$$f(1) = 2$$

$$-2a = 9 \Rightarrow a = -4.5$$

$$a + b = 2 \Rightarrow b = 2 - a$$

$$a - b = -3 \Rightarrow a - (2 - a) = -3 \Rightarrow 2a - 2 = -3 \Rightarrow 2a = -1 \Rightarrow a = -0.5$$

$$a - b = -1$$

$$\frac{(x+2)^2 + 1}{(x+2)^2 + 3}$$

$$\Rightarrow x = \sqrt{3-2} \Rightarrow f(\sqrt{3-2}) \Rightarrow$$

$$\frac{(\sqrt{3-2}+2)^2 + 1}{(\sqrt{3-2}+2)^2 + 3} = \frac{4}{4} = 1$$

$$\Rightarrow \frac{2}{\sqrt{3}} \checkmark$$

Ranib

م 3 | دینا ادھی

$$\frac{x^4}{x^2} + \frac{1}{x^2} = x^2 + \frac{1}{x^2}$$

$$f\left(x - \frac{1}{x}\right) = \left(x - \frac{1}{x}\right)^2 + 2 \Rightarrow f(-3) = (-3)^2 + 2 = 11$$

$$9 + 2 = 11$$

$$\frac{f}{g} = (1, 0) \left(1, \frac{-f}{\sqrt{\lambda}}\right) \left(0, \frac{f}{4}\right)$$

$$\frac{g}{f} = \left(1, \frac{-\sqrt{\lambda}}{4}\right) \left(0, \frac{f}{4}\right) =$$

$$\text{الف) } (1, 2) (3, 1) (-5, 4) (-1, -4)$$

$$\text{ب) } (1, 2) (3, 5) (-5, 3) (-1, -1)$$

$$\text{ج) } (1, 3) (3, 33) (-5, 9) (1, 9)$$

$$\text{د) } (1, 1) \left(\frac{3}{4}, 4\right) \left(-\frac{5}{4}, 2\right) \left(\frac{1}{4}, -2\right)$$

$$(1, 3) (1, 4) (3, 1) \leq f(x)$$

$$g(x) \Rightarrow (1, 0) (1, 1) (3, -1)$$

$$\text{الف) } f - g = (1, 2) (1, 4) (3, 2)$$

$$\text{ب) } \frac{f}{g} = (1, 4) \left(1, \frac{1}{4}\right) (3, -2)$$