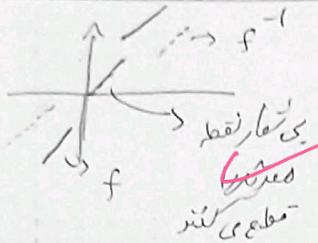


۱۹،۵ صد آفرین ت

نام و نام خانوادگی شماره کلاس پاسخنامه تشریحی تکلیف شماره کلاس



$$f \circ f^{-1} = 2x - \frac{3}{x} \rightarrow x = 2x - \frac{3}{x}$$

$$x = \frac{3}{x}$$

در دامنه وجود ندارد

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$$\frac{a}{x} = -\frac{b}{x} \rightarrow -a = b \rightarrow \frac{ax+3}{2x-a} \xrightarrow{f=f^{-1}} f \circ f^{-1}(x-\sqrt{x}) \rightarrow f \circ f^{-1}(x-\sqrt{x})$$

→ x - √x

$$\frac{mx+3}{x+m+3} = x \rightarrow mx+3 = x^2 + m+3x \rightarrow x^2 + 3x - 3 = 0$$

$$\frac{1}{x} + \frac{1}{3} = \frac{x+3}{3x} = \frac{-3}{-3} = 1$$

α + β = -3
αβ = -3

$$y = |2x+5| - |x-7| = 2x+5 - (x-7) = x+12$$

$$f = -2x+7 \rightarrow f^{-1} = \frac{x-7}{-2}$$

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$$\frac{g(x)+1}{x} = f(2x) \rightarrow f^{-1}\left(\frac{g(x)+1}{x}\right) = 2x \rightarrow \frac{f^{-1}\left(\frac{x+1}{x}\right)}{x} = g^{-1}$$

a = 1/2 b = 1 c = 2 d = 0

2/3 = 2/3

$$D_f = R_f \quad f = x + 2\sqrt{x} \Rightarrow (\sqrt{x})^2 + 2\sqrt{x} + 1 = f + 1$$

$$x + 2\sqrt{x}$$

$$(\sqrt{x} + 1)^2 = f + 1 \quad (D_f \leq [a, +\infty))$$

$$\sqrt{x} + 1 = \sqrt{f + 1} \quad f^{-1} = x - 2\sqrt{x} + 1$$

$$\sqrt{x} = \sqrt{f + 1} - 1 \rightarrow x = f + 1 + 1 - 2\sqrt{f + 1}$$

$$x = n - 1 + 2^n \rightarrow x = 0$$

نقطه

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$$f^{-1} \circ x \xrightarrow{f} x \xrightarrow{f} f(x) \rightarrow x \geq x^2 + \epsilon x \rightarrow x^2 + 3x$$

هذه

$$x^2 + 3x \leq 0 \rightarrow x(x + 3) \leq 0$$

$$x \leq 0$$

عدد نامنبر

$$-\sqrt{x} \cdot \sqrt{x} = -x$$

دست بن

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$$x - \epsilon = f^{-1}(x + \epsilon) \xrightarrow{f} f(x - \epsilon) \leq x + \epsilon \rightarrow -x + 2 + \sqrt{x + 1} = x + \epsilon$$

$$\sqrt{x + 1} = 2x + 1 \rightarrow x + 1 = \epsilon x^2 + \epsilon x + 1 \rightarrow \epsilon x^2 + \epsilon x = 0 \Rightarrow \begin{cases} x = 0 \\ x = -\frac{\epsilon}{\epsilon} = -1 \end{cases}$$

$$f(x) = x + 2\sqrt{x}$$

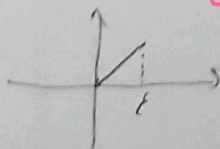
نقطه

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$$\sqrt{y} = 2 - \sqrt{x} \rightarrow y = 4 - 4\sqrt{x} + x \rightarrow f \circ f = \sqrt{4 - 4\sqrt{x} + x} + \sqrt{y} = 2$$

$$y = 4 - 4\sqrt{x} + x - \epsilon \sqrt{4 - 4\sqrt{x} + x} \rightarrow y = 4 - 4\sqrt{x} + x - \epsilon(2 - \sqrt{x})$$

$$y \leq x$$



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