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تبرین شماره ۲۵

عزیزان حاجی علی زاده

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

$$x = x^2 + 1 - 2x$$

$$x^2 - 2x = 0$$

$$x(x-2) = 0 \rightarrow x=2 \checkmark$$

$$\rightarrow x=0$$

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

$$1 = -x^2 + 2x - 1$$

$$x^2 - 2x + 2 = 0$$

ریشه ندارد $x > 1$

(۱, ۷۵)

$$\text{الف: } -2 < \frac{2x-1}{x} < 2$$

$$0 < \frac{2x-1}{x}$$

$$\frac{-1}{x} < 0$$

$$\left(\frac{1}{2}, +\infty\right) \checkmark$$

(۱, ۷۵)

$$\frac{0}{+} - \frac{1}{-} = \frac{1}{+}$$

$$\frac{+}{+} - \frac{0}{-} = \frac{+}{-}$$

$$\therefore \frac{x-2}{2x+1} > 1$$

$$\frac{x-2-2x-1}{2x+1} > 0$$

$$\frac{-x-3}{2x+1} > 0$$

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

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صیغه جابجایی

$$\frac{x-2}{2x+1} < -1$$

$$\frac{x-2+2x+1}{2x+1} < 0$$

$$\frac{3x-1}{2x+1} < 0$$

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

$$\left(-3, \frac{1}{3}\right) - \left[-\frac{1}{2}\right]$$

$$-x-4 < x^2 < x+4$$

$$0 < x^2 + x + 4 \quad X$$

$$x^2 - x - 4 < 0$$

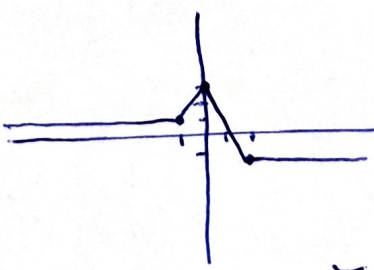
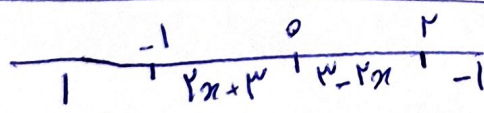
$$(x-3)(x+2) < 0$$

$$\frac{-2}{+1} - \frac{3}{-1} = \frac{1}{+}$$

$$|x - 0.5| < 2.5$$

$$x = 0.5 \checkmark$$

(۲)



$$x = 3$$

$$x = -1$$

$$x + (-1) = 2 \checkmark$$

(۲)

تغییرات مقدار در صورت حذف x اجباری نیست

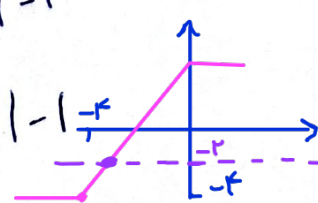
$$y = \left| \frac{1}{x} (x+3) \right| - 1$$

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

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

$$\left| \frac{1}{x} (x+3) \right| - 1 = \left| \frac{1}{x} x \right| - 2$$

$$\left| \frac{1}{x} (x+3) \right| = \left| \frac{1}{x} x \right| - 1$$



$$x = -3$$

$$-3 < x < 0$$

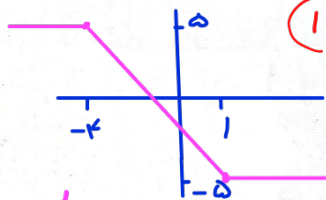
$$x + 3 + x = -2 \rightarrow x = -3$$

$$x^2 \rightarrow \text{تغییرات مقدار در صورت حذف x اجباری نیست}$$

الف: $\frac{-2}{\omega - 2x - 3} = \omega$
 $[1x - 1 - 1x + 1]$
 تابع آشفته

$$R = [-\omega, \omega]$$

$$R = \{-5, -4, \dots, 5\}$$

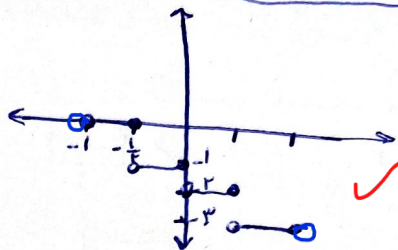


چون بابت داریم، بر نقطه شل اولد مع این بک میده

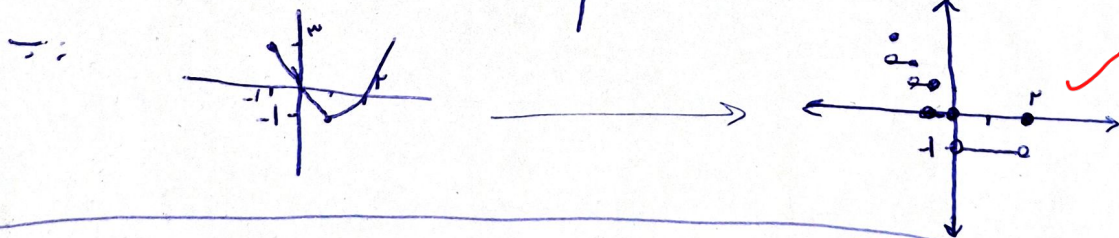
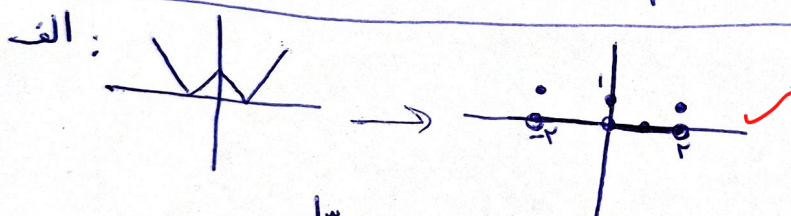
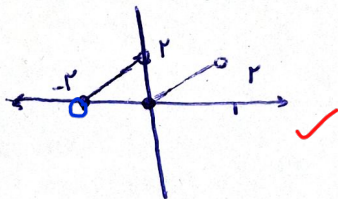
$$\therefore \frac{1}{x} - \left[\frac{1}{x}\right] + 1 = f(x)$$

$$\ominus \left[\frac{1}{x} + \frac{1}{x}\right] \quad \text{---} \quad [0, 1] + 1 \Rightarrow [1, 2] \quad R = [-1, 0]$$

الف: $-1, -\frac{1}{2} = 0$ $0, \frac{1}{2} = -2$
 $-\frac{1}{2}, 0 = -1$ $\frac{1}{2}, 1 = -3$



$\therefore -2, 0 = x + 2$
 $0, 2 = x$



$$a = 0, 2 \rightarrow b = 1, 2, 3$$

$$1, 2, 3 - 0 \neq 1, 2 \quad X$$

$$a = 1, 2 \rightarrow b = 2, 3, 4$$

$$2, 3, 4 - 1 = 1, 2 \quad \checkmark$$

$$2, 3, 4 = 2, 3$$

$$\boxed{b = 2, 3} \quad \checkmark \rightarrow a + b = \boxed{4, 5}$$

$$(1 + \sqrt{2})(1 - \sqrt{2}) = -1$$

$$t \times \frac{1}{t} = -1$$

$$t^9 + \left(\frac{-1}{t}\right)^9 = 19\Lambda$$

$$t^9 + \frac{1}{t^9} = 19\Lambda$$

$$t^9 = P$$

$$P + \frac{1}{P} = 19\Lambda$$

$$P^2 - 19\Lambda P + 1 = 0$$

$$P = 99 \pm \sqrt{0} \sqrt{2}$$

$$t^9 = (1 + \sqrt{2})^9 = 99 + \sqrt{0} \sqrt{2}$$

$$\sqrt{0} \times \sqrt{2} = 9\Lambda$$

$$99 + 9\Lambda = \boxed{19V} \quad \checkmark$$