

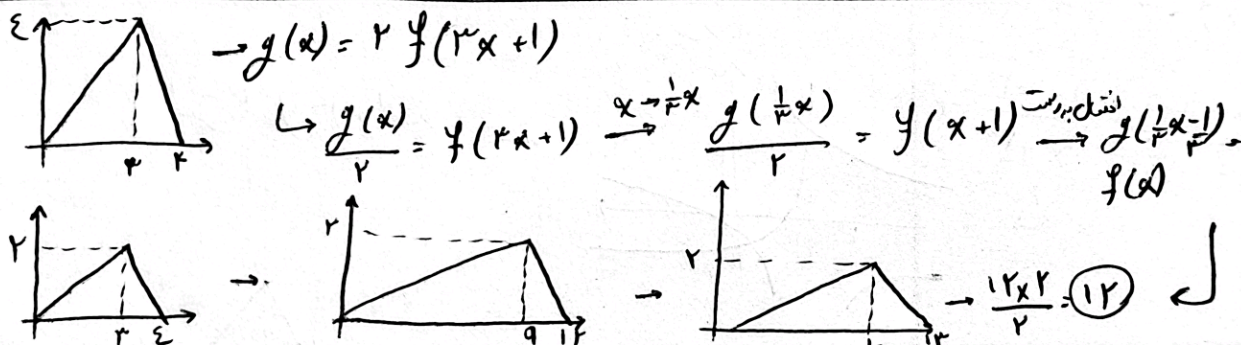
الف) $-6, 3x - 2, 2 \rightarrow -2, 3x - 2, 2 \rightarrow -\frac{2}{3}, 3x - 2, \frac{2}{3} \rightarrow \boxed{x \in [-\frac{2}{3}, \frac{2}{3}]}$

ب) $3x - 2 \rightarrow x^2 - 2 \rightarrow -1$
 $3x - 2 \rightarrow x = -6 \rightarrow -14$ } $\boxed{x \in [-14, -1]}$

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$f(x) = x + \sqrt{x-2} \rightarrow (x-2) + \sqrt{(x-2)-2} = x + \sqrt{x-4} - 2$
 $x + \sqrt{x-4} - 2 \rightarrow y + \sqrt{y-4} - 2 = x$
 چون فقط بر خودر باغودار x خواسته شده لذا مقدار x و y برابر است
 $x + \sqrt{x-4} - 2 = x \rightarrow \sqrt{x-4} = 2 \rightarrow \boxed{x = 8}$

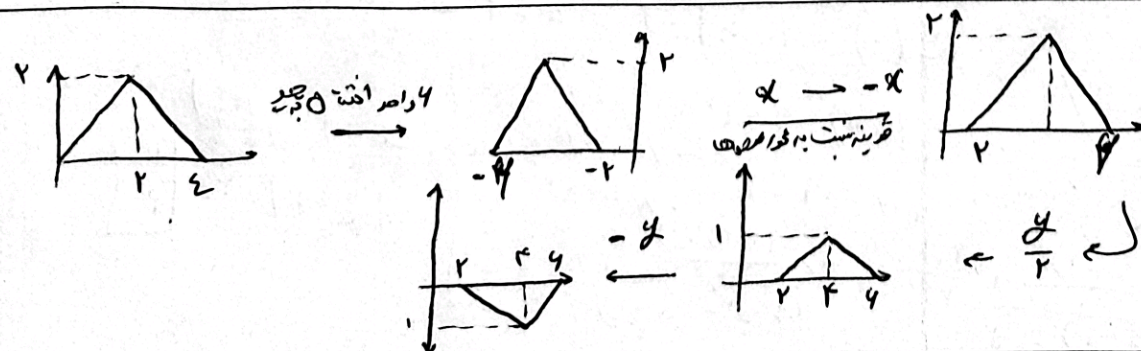
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$f(2) = -3 \rightarrow y = -2x + a = a - 4$
 $\frac{x-a}{2} = 2 \rightarrow x = a + 4$
 $2(a+4) - 1 = a - 4$
 $2a + 8 - 1 = a - 4$
 $2a = a - 4 \rightarrow \boxed{a = -4}$

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$$f(x) \rightarrow \frac{-1 \quad r \quad 0}{-p + q - p +} \rightarrow f(rx-1) \rightarrow \frac{0 \quad 1 \quad r}{-p + q - p +}$$

$$\sqrt{-(x+r)f(rx-1)} \rightarrow \frac{-r \quad 0 \quad 1 \quad r}{-p + q - p +} \Rightarrow \boxed{x \in [-r, 0] \cup [1, r]}$$

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$$|r(x+k)+1-r| = g(x)$$

$$g(x) = |rx + rk - r| - r \quad ? \quad |rx + rk - r| - r = |rx - r| + 1$$

$$f(x) = |x - r| + 1$$

$$x = \dots$$

$$|rk - r| - r = r$$

$$rk - r = 4$$

$$\boxed{rk = \frac{4}{r}}$$

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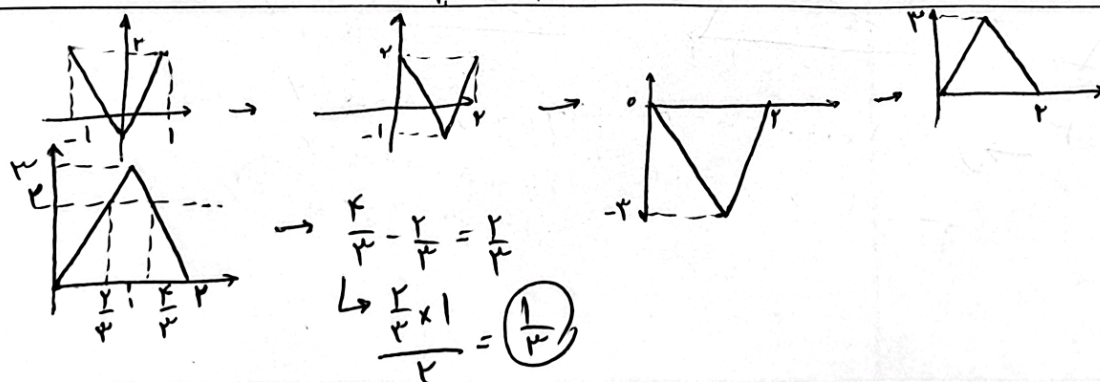
$$f(x) \rightarrow -f(x) \rightarrow -f\left(\frac{1}{p}x\right) + k = f(x)$$

$$\frac{rx-1}{x+1} = \frac{-rx+r}{x+r} + k$$

تنبؤ x

طبیعی شکل k و a

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$$f(\cdot) = |a - r| - r = a - r$$

$$f(a+r) = |a+r-a| - r = \dots$$

$$|x-a| = r \quad \begin{cases} x = a+r \\ x = a-r \end{cases}$$

$$\frac{(a-r)r}{r} + \frac{ry}{r} = \frac{q}{r} \rightarrow \frac{(a-r)r + ry}{r} = \frac{q}{r}$$

$$\hookrightarrow a^2 - \varepsilon a + \dots = \dots$$

$$\hookrightarrow a = r$$

$$\boxed{y = f(a) = -r}$$

$$f\left(\frac{1}{a}\right) = f\left(\frac{1}{r}\right)$$

$$\hookrightarrow \left|\frac{1}{r} - r\right| - r = \boxed{\frac{r}{r}}$$

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