

$$1) f(x) = x + [x] \rightarrow [y] = [x + [x]]$$

$$\Rightarrow \frac{[x]}{2} = [x + [x]] \quad [y] = 2[x] \rightarrow [x] = \frac{[y]}{2}$$

$$\frac{[x]}{2} = 2[x] \rightarrow x = 2[x] \quad [y] = \frac{[x]}{2}$$

$$b) \Rightarrow 2x - \frac{x}{2} = x \rightarrow x - \frac{x}{2} = 0 \rightarrow x = \frac{x}{2}$$

2)

$$\frac{ax+b}{cx+d} \rightarrow \text{پس خودش! واروس برابر}$$

حقیقی و غیر حقیقی
مجموعه حقیقی و غیر حقیقی

$$f \circ f^{-1}(x) = f \circ f^{-1} = x$$

اگر حقیقی و غیر حقیقی $a = y$ مدبر قطع
کند یعنی $a = -d$ خودش! واروس برابر!

3)

$$f(x) = \frac{mx+n}{x+m+n} = x \rightarrow mx+n = x^2 + mx + nx$$

$$S = \frac{-n}{-c} = 1 \leftarrow \begin{matrix} x^2 + cx - c = 0 \\ -cx^2 + cx + 1 = 0 \end{matrix}$$

کتابخانه

4)

$$f(x) = |2x+5| - |2x-1|$$

$$\begin{matrix} -2x & 2x \\ | & | \end{matrix}$$

$$\frac{-2x+5}{1}$$

$$-2x+5+2x-1 = 4$$

$$\frac{x-5}{-1} = f'(x)$$

$$-2x+5+2x-1 = 4$$

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$$f(x) = -x + \sqrt{x+1} \quad x \geq -1$$

$$+x+y = \sqrt{x+1} \rightarrow x+y+1 = \sqrt{x+1} \rightarrow x+y+1 = x+1 \rightarrow x+y = x \rightarrow y = 0$$

$$(y-\epsilon)^2 = \epsilon^2 - 14y + 14 - \epsilon^2 = \sqrt{-14y+14} = \epsilon\sqrt{-y+1}$$

$$\frac{-y+\epsilon+\epsilon\sqrt{-y+1}}{2} \Rightarrow \sqrt{-y+1} = y+1$$

$$\Rightarrow -x+1+\sqrt{-x+1} = y+1 \rightarrow -x+1+\sqrt{-x+1} = y+1$$

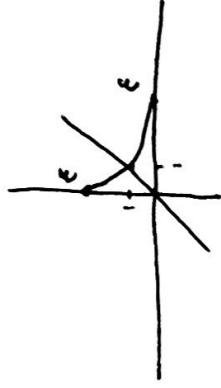
$$-x-1+\sqrt{-x-1} = x-1 \rightarrow \sqrt{-x-1} = x-1$$

$$+1x+11 = \epsilon x^2 - \epsilon x + 1 \rightarrow \epsilon x^2 - \epsilon x - 11 = 0$$

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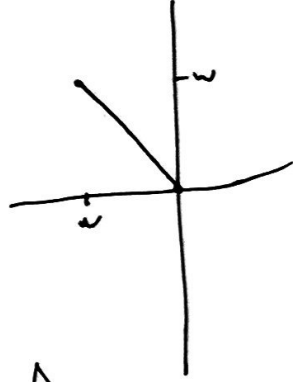
$$\sqrt{x} + \sqrt{y} = 1$$

مجموعه جوابی برابر 1



$$R_f = [0, 1]$$

$$D_f = [0, 1]$$



$$\textcircled{a} \quad g(x) = r f(cx) - 1 \quad y = r f(cx) - 1 \rightarrow \frac{y+1}{r} = f(cx) \quad \downarrow f^{-1}$$

$$a = \frac{1}{r} \quad d = 0$$

$$b = 1 \quad c = r$$

$$\frac{\frac{1}{r}x+1}{r} = \left(\frac{1}{r}\right)$$

$$g(x) = \frac{f\left(\frac{y+1}{r}\right)}{r} = x \quad \leftarrow f\left(\frac{y+1}{r}\right) = ryx$$

$$\textcircled{y} \quad f(x) = x + r\sqrt{x} \rightarrow R^T D_f / (R f = 0, +\infty)$$

$$y = x + r\sqrt{x}$$

$$y - x = r\sqrt{x}$$

$$y - rx + x^r = \varepsilon x \rightarrow x^r (ry + \varepsilon)x + y^r = 0$$

$$\text{where } x = \frac{\sqrt{(ry - \varepsilon)^r - \varepsilon y^r + ry - \varepsilon}}{r} = \frac{\sqrt{-14y + 14 + ry - \varepsilon}}{r}$$

$$\Rightarrow \sqrt{-y + 1 + y - r} \Rightarrow r\sqrt{-x + 1 + x - r}$$

$$\textcircled{v} \quad r + x - 1 = a \rightarrow r = 1 \rightarrow x = 0 \quad \text{see!}$$

$$\textcircled{v} \quad f(x) = x^r + \varepsilon x \rightarrow y = x^r + \varepsilon x \quad f^{-1}(x) > x$$

$$x > f(x)$$

$$x^r + \varepsilon x \rightarrow \varepsilon x^r + \varepsilon \quad x > x^r + \varepsilon x$$

$$\text{هو } x^r + \varepsilon \quad \text{هو } x^r + \varepsilon$$

$$\text{اعبر} \rightarrow \text{هو } x^r + \varepsilon \rightarrow \text{هو } x^r + \varepsilon$$