

$$x + [x] = y$$

$$x = y + [y]$$

$$[x] = y + [y]$$

$$[y] = \frac{[x]}{y}$$

$$x = y + \frac{[x]}{y}$$

$$y = x - \frac{[x]}{y}$$

$$x - \frac{[x]}{y} = x + [x]$$

$$\frac{y}{y} [x] = 0 \quad [x] = 0$$

$0 \leq x < 1$
کاملاً منفی

$$D = \{(y, y+1), y \in \mathbb{Z}\}$$

$$\frac{ax+b}{cx+d} \quad | \frac{y}{x}$$

$$cx+d = 0$$

$$x = -\frac{d}{c}$$

$$-\frac{b}{c} = \frac{a}{c} \quad -cb = ca \quad a = -b$$

$$f \circ f = f \circ f^{-1}$$

$$f \circ f^{-1} = x = \boxed{a - \sqrt{4}}$$

$$\frac{mx+p}{x+m+p} = x$$

$$x^2 + mx + px = mx + p$$

$$x^2 + px - p = 0 \quad S = -p$$

$$D = -p$$

$$\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{-p}{-p} = 1$$

$$|rx+d| - |ax-r|$$

$$-\frac{r}{d} \quad \frac{r}{d}$$

$$\begin{array}{ccc} -rx-d+ax-r & rx+d+ax-r & rx+d-ax+r \\ rx-v & ax+v & \underbrace{-rx+v} \end{array}$$

$$-rx+v=y$$

$$-ry+v=x$$

$$-ry=x-v$$

$$\boxed{y = \frac{x-v}{-r}}$$

$$g(x) = 2f(3x) - 1 \quad f(3x) = \frac{g(x) + 1}{2}$$

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$$g(x) = 2f(3x) - 1 \xrightarrow{g^{-1}} y = 2f(3x) - 1 \rightarrow \frac{x+1}{2} = f(3y)$$

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

$$b=1$$

$$a=\frac{1}{3}$$

$$c=2$$

$$d=0$$

$$\frac{ac+d}{2b} = \frac{1}{3}$$

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

$$x = y + 2\sqrt{y} + 1 - 1$$

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

$$x+1 = (\sqrt{y} + 1)^2$$

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

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

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

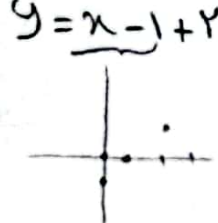
$$y = x + 1 + 1 - 2\sqrt{x+1}$$

$$y = x + 2 - 2\sqrt{x+1}$$

$$f^{-1} \text{ دامنه} = \text{بردار}$$

$$[0, +\infty)$$

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



نقطه
برابر
 $y=x$

نقطه
برابر
 $y=x$

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

$$2^x = 1 \quad \boxed{x=0}$$

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$$f^{-1}(x) - x \geq 0$$

$$x^3 + 4x \geq x$$

$$x^3 + 4x = x$$

$$x^3 + 4x = 0$$

$$\boxed{x=0}$$

$$x(x^2 + 4) = 0$$

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$$y = -x + \sqrt{x+f}$$

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

$$(x+y)^r = x+f$$

$$x^r + y^r + rxy = x+f$$

$$y^r - x^r + rxy - x - f = 0$$

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$$y^r + (rx-1)y + x^r - f = 0$$

$$\frac{-(rx-1) \pm \sqrt{(rx-1)^2 - 4(x^r - f)}}{r}$$

$$\frac{-rx+1 \pm \sqrt{1-4x}}{r}$$

$$\frac{-r(x+f)+1 \pm \sqrt{1-4(x+f)}}{r}$$

$$y = \frac{-rx-1 \pm \sqrt{1-4x}}{r} = x - \mu$$

$$x=0$$

1a

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

$$\sqrt{y} + \sqrt{x} = r \quad f^{-1}(x) = f(x)$$

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

$$x \in Df^{-1} \rightarrow x \in \mathbb{R}^f \quad [0, f]$$

