

$$f(\sqrt{3}-2) = \frac{(\sqrt{3}-2)^2 + f(\sqrt{3}-2) + 1}{(\sqrt{3}-2)^2 + f(\sqrt{3}-2) + 1}$$

$$\frac{V - 5\sqrt{3} + 5\sqrt{3} - 1 + 1}{V - 4\sqrt{3} + 4\sqrt{3} - 1 + 1} = \frac{V - 1 + 1}{V - 1 + 1} = \frac{K}{1} = \frac{K}{1}$$

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

$$f(-3) = (-3)^2 + 1 = 10$$

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

$$f(n) = n^2 + 1$$

$$f(-1) = (-1)^2 + 1 = 2$$

$$f\left(\frac{1}{g}\right) \Rightarrow (1, 0) = \left\{ (2, 0), \left(1, \frac{-4}{\sqrt{2}}\right), \left(\frac{2}{3}, 1\right) \right\} g$$

$$9 - x^2 \geq 0$$

$$x \leq \pm 3 \quad [x^2] \Rightarrow [-3, 3]$$

$$x=1 \quad f(1) = 0 \quad \left(1, \frac{0}{\sqrt{2}}\right) = (1, 0)$$

$$g(1) = \sqrt{2}$$

$$x=2 \quad \text{تقریب شده}$$

$$g \Rightarrow (2, 0) \quad x=1 \quad \text{تقریب شده} \rightarrow \left\{ (1, \frac{\sqrt{2}}{2}), \left(0, \frac{2}{3}\right) \right\}$$

$$f) (2, 2) (3, 1) (-5, 3) (1, -4)$$

$$g) (2, 4) (3, 9) (-5, 13) (1, 13)$$

$$b) (2, 2) (3, 4) (-5, 3) (1, 1)$$

$$d) (1, 1) \left(\frac{3}{2}, 4\right) \left(-\frac{5}{2}, 2\right) \left(\frac{1}{2}, -2\right)$$

$$f) (2, 2) (1, 4) (3, 2)$$

$$f-g$$

$$b) (1, 0) (2, 4) (3, -2)$$

$$f = \{(2, 4) (7, 4) (1, 1) (3, 2) (5, 4)\}$$

$$\frac{f}{g} = \left\{ (3, -2) (2, 4) \right\}$$

$xf(x) \geq 0$
 $f(x) \geq 0, x \geq 0 \rightarrow [-1, 0] \cup [2, \infty]$
 $f(x) \leq 0, x \leq 0 \rightarrow [0, 2]$
 $f(x) \geq 0, x \geq 0 \rightarrow [2, \infty]$
 $f(x) \leq 0, x \leq 0 \rightarrow [0]$

$D_f = \{0\} \cup [2, \infty]$
 $Dy = [-1, 0] \cup [2, \infty]$

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$\frac{-x}{\sqrt{f(x)}} \geq 0 \Rightarrow \sqrt{\frac{x}{f(x)}} \leq 0$
 $\sqrt{f(x)} \neq 0 \rightarrow f(x) \neq 0$
 $f(x) > 0 \rightarrow (-x - 2) \cup (2, x)$
 $-x > 0 \rightarrow x < 0 \rightarrow x \leq 0 \cup (2, x) = \emptyset$
 $x \leq 0 \cup (-x, -2) = (-x, -2)$

$D_f = (-x, -2)$
 $Dy = (-x, 2) - \{0\}$

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$f(x) - 2f(2) = x^2 - 4x + 4$
 $x = 2 \rightarrow f(2) - 2f(2) = 4 - 4 + 4$
 $-f(2) = 4$
 $f(2) = -4$
 $x = -2 \rightarrow f(-2) + 4 = 4 + 4 + 4$
 $f(-2) + 4 = 12 \rightarrow f(-2) = 8$

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$f(\sqrt{x}) + f(\frac{1}{\sqrt{x}}) = 2 \Rightarrow \sqrt{x} + \frac{1}{\sqrt{x}} = 2$
 $\sqrt{x} + \frac{1}{\sqrt{x}} = 2$
 $\omega - \sqrt{\omega} + 1 = 2$
 $2 \times 2 + 2 = 6$

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$f(x-1) = a(x-1)^2 - b(x-1) + c = ax^2 - 2ax + a - bx + b + c$
 $f(x-1) - f(x) = -2ax + b + a + 4x + c$
 $-2a = -4 \Rightarrow a = 2$
 $a + b = 2 \Rightarrow b = 0$
 $2 + b = 2 \Rightarrow b = 0$
 $b = -1$
 $a - b = 2 - (-1) = 3$
 $a - b = -c - d = -1$

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