

بیا اینها رو

$$g(x) = \sqrt{(x-4) - 4\sqrt{x-4}} + 4 = \left(\sqrt{x-4} - 2\right)^2 \Rightarrow \sqrt{x-4} - 2 \Rightarrow \sqrt{x-4} - 1$$

$$f(x) = \sqrt{(x-4) + 4\sqrt{x-4}} + 4 = \left(\sqrt{x-4} + 2\right)^2 \Rightarrow \sqrt{x-4} + 2 \Rightarrow \sqrt{x-4} + 1$$

د

$$\frac{1}{-4} = \frac{1}{-4}$$

$$a=0, b=2, c=-4$$

$$\sqrt{x-4} = a + b\sqrt{x+c}$$

$$D_g \cap D_f = \{x \in \mathbb{R} \mid x \geq 4\}$$

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$$f = \frac{1}{x} \Rightarrow f(0,1) = 1$$

$$f(x) = \frac{x+1}{x^2-x+1}, x=1$$

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

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$$f(x) = \frac{x+1}{x^2-x+1} \Rightarrow f(1) = 2$$

$$D_f \cap D_g = \{x \in \mathbb{R} \mid x \geq 4\}$$

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$$h = \frac{1}{x} \Rightarrow h(0,1) = 1$$

$$f(x) = \frac{1}{x} \Rightarrow f(0,1) = 1$$

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$$f(x) = \frac{1}{x} \Rightarrow f(0,1) = 1$$

$$h = \frac{1}{x} \Rightarrow h(0,1) = 1$$

$$1) \quad y = x^3 - 3x^2 + 4x - 1 \rightarrow R$$

$$x^3 - 3x^2 + 4x - 1 = 0 \rightarrow \text{نشان ده}$$

د

$$2) \quad y = \frac{x^2 - 1}{x^2 + 1} \rightarrow R - \{-1, 0\}$$

$$y x^2 - x^2 + 1 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow x^2 - x(1) \geq 0$$

$$x^2 - x + 1 = 0$$

$$x = 0$$

$$x = -1$$

$$+ \quad - \quad +$$

$$3) \quad x^2 - 2x + 10 \rightarrow \frac{-\Delta}{2a} = \frac{-(-2)}{2} = 1$$

$$[1, \infty)$$

$$4) \quad -x^2 + 4x + 3 \rightarrow \frac{-\Delta}{2a} = \frac{-(-4) \pm \sqrt{16 - 4(-1)(3)}}{2(-1)} = \frac{4 \pm 2}{-2}$$

$$(-\infty, -1] \cup [3, \infty)$$

$$5) \quad \sqrt{x^2 + 4x - 3} \rightarrow \frac{-\Delta}{2a} = \frac{-(-4) \pm \sqrt{16 - 4(1)(-3)}}{2(1)} = \frac{4 \pm 5}{2}$$

$$[-1, 3]$$

$$6) \quad \sqrt{4x - x^2} \rightarrow \frac{-\Delta}{2a} = \frac{-(-4) \pm \sqrt{16 - 4(1)(4)}}{2(-1)} = \frac{4 \pm 0}{-2} = -2$$

$$[-2, 2]$$

$$7) \quad R \rightarrow (-\infty, \infty)$$

$$8) \quad (-\infty, \infty)$$

$$9) \quad \frac{a}{c} = \frac{1}{2} = 2 \rightarrow R - \{2\}$$

$$10) \quad \frac{1}{x} = 2 \rightarrow R - \{2\}$$