

محیا خسرویان گروه C نقیضیه دختانه تکالیف ۷

$$x \neq 0 \rightarrow \begin{matrix} \text{یا عدد منفی} \\ \text{یا عدد مثبت} \end{matrix} \rightarrow D_f = [-1, 0] \cup [2, 1] \quad (1)$$

$$f(x) < 0 \text{ و } \neq 0 \quad D_f = (0, 2] \quad (2)$$

$$x \rightarrow 2 \quad f(2) - 2f(2) = f(-2) = 2^2 - 3x(2) + 2 = 4 - 6 + 2 = 0 \quad (3)$$

$$f(f(\omega)) + f(f(1)) \quad \vee + 2 = 9 \quad (4)$$

$$1 \leq 3 \rightarrow 2 \times 1 + 3 = 5 \rightarrow f(1)$$

$$\omega > 3 \rightarrow \omega - \sqrt{\omega + 4} = \omega - |3| = 2 \rightarrow f(\omega)$$

$$2 \leq 3 \rightarrow 2 \times 2 + 3 = 7 \rightarrow f(2)$$

$$x \rightarrow 3 \quad f(2) - f(3) = 20 \quad f(x) = 4a - 2b + x \quad (5)$$

$$f(1) - f(2) = 14 \quad f(1) = a - b + 1$$

$$f(1) - f(2) = a - b + 1 - (4a - 2b + 2) = 14$$

$$\begin{cases} -3a + b = 13 \\ -3a + b = 14 \end{cases} \Rightarrow \begin{cases} -3a = 1 \\ a = -\frac{1}{3} \end{cases} \quad \begin{cases} 9 + b = 14 \\ b = 5 \end{cases}$$

$$f(3) = 9a - 3b + 3$$

$$4a - 2b + 2 - (9a - 3b + 3) = -20$$

$$a - b = -3 \quad a = -1$$

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

$$f(3) = 9 - 9 + 1 = 1$$

⑨

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

$$f(-1) = 1 + 3 + 1 = 5$$

$$f(2) = 4 - 6 + 1 = -1$$

$$x \geq 2 \quad 3x + 1 = 7 \rightarrow f(7)$$

$$-x < 2 \quad -x^2 = 4 \rightarrow f(-2)$$

$$\frac{3 \times 13 - 1}{\sqrt{}} = \frac{38}{\sqrt{}}$$

$$x \geq 2 \quad 3x + 1 = 7 \rightarrow f(7)$$

$$\frac{f(1) - f(2)}{9 - 2} = \frac{9 - 4}{7} = \frac{5}{7} = 0$$

$$\frac{(\sqrt{x} - 2)^2 + 4(\sqrt{x} - 2) + 9}{(\sqrt{x} - 2) + 4(\sqrt{x} - 2) + 9} = \frac{\cancel{1} + \cancel{4} - \cancel{4\sqrt{x}} + \cancel{4\sqrt{x}} - \cancel{4} + 9}{\cancel{1} + \cancel{4} - \cancel{4\sqrt{x}} + \cancel{4\sqrt{x}} - \cancel{4} + 9} = \frac{1}{1} = 1$$

$$\frac{1 + 1 + 9}{1 + 1 + 9} = \frac{11}{11}$$

$$x \rightarrow 1$$

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

$$\sqrt{1} = 1$$

$$f(1) = 2 \quad x^2 = 1 \quad x - 2 = 1$$