

For 17, 18

ازمونه

آزمون

$$\sqrt{\frac{(x-1)^2 - x^2}{x(x-1)}} = \sqrt{\frac{x^2 - 2x + 1 - x^2}{x^2 - x}} = \sqrt{\frac{-2x + 1}{x(x-1)}} \rightarrow \frac{-2x + 1}{x(x-1)} \geq 0 \quad (1)$$

$$+\frac{0}{\phi} - \frac{1}{\phi} + \frac{1}{\phi} - \rightarrow D_f = (-\infty, 0) \cup [\frac{1}{2}, 1) \quad \checkmark$$

(2)

$$\frac{-x-2}{x^2+x} \Rightarrow \begin{cases} x+1 \neq 0 \rightarrow x \neq -1 \\ (x-1)(x+2) \neq 0 \rightarrow x \neq 1, -2 \end{cases}$$

$$D_f = \mathbb{R} \setminus \{-2, -\frac{1}{2}, 1\} \quad \checkmark$$

$$+\frac{-2}{\phi} - \frac{0}{\phi} + \frac{0}{\phi} +$$

$$D_f = (-\infty, -2] \cup [\frac{1}{2}, +\infty) \quad \checkmark$$

(3)

$$y+1 = 1 - \sqrt{x-1} \xrightarrow{y+1=9+\sqrt{x-1}-4\sqrt{x-1}}$$

$$y = 1 + \sqrt{x-1} - 4\sqrt{x-1} \quad \left. \begin{array}{l} x-1 \geq 0 \rightarrow x \geq 1 \\ 1 - \sqrt{x-1} \geq 0 \rightarrow x \leq 17 \end{array} \right\} D_f = [1, 17] \quad \checkmark$$

$$x^2 - x - 2 \geq 0 \rightarrow \frac{1 \pm \sqrt{9}}{2} = 2, -1 \quad \frac{-1}{+1-1+} \quad (-\infty, -1) \cup (2, +\infty) \quad (2)$$

$$1 + x^2 - 1 \geq 0 \rightarrow (x-1)(x+1) \geq 0 \quad \frac{-1}{+1-1+} \quad (-\infty, -1] \cup [1, +\infty)$$

$$\sqrt{x^2-1} + 1 \neq 0 \rightarrow \checkmark$$

$$\checkmark \cap \rightarrow D_f = (-\infty, -1) \cup (2, +\infty)$$

$$-\frac{2}{\phi} + \frac{b}{\phi} - \quad \frac{-a \pm \sqrt{a^2+12}}{-2} = -2 \rightarrow -a - \sqrt{a^2+12} = 4 \quad (2) - 4$$

$$-(x+2)(x-\frac{2}{2}) = (x^2 + \frac{1}{2}x - \frac{2}{2}) = x^2 - \frac{1}{2} + 2 \quad a = -\frac{1}{2} \quad b = \frac{2}{2} \quad \oplus \rightarrow (1) \quad \checkmark$$

$$2x+3-x \geq 0 \rightarrow x+3 \geq 0 \rightarrow -3 \leq x$$

$$2x+3=x \rightarrow x=-3$$

$$2x-2=x \rightarrow 2x-2=0 \rightarrow x=1$$

$$D_f = [-3, +\infty) \quad \checkmark$$

(2)

$$f(-1) = \cancel{1+1+1} + 1a + 1x \rightarrow 1a - 1$$

(2) - 9

$$f(a) = (a+1)V \rightarrow Va + V$$

$$1a + 1 = 1a - 1 \rightarrow 1a = -1$$

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

... با سق

$$\left. \begin{aligned} f(1-\sqrt{2}) &\rightarrow 1-\sqrt{2}+1 \rightarrow 2-\sqrt{2} \\ f(1+\sqrt{2}) &\rightarrow 1+\sqrt{2}+1 \rightarrow 2+\sqrt{2} \end{aligned} \right\} \begin{aligned} &+ \frac{2+\sqrt{2}+1}{\sqrt{2}+\sqrt{2}} + 2 + \frac{2-\sqrt{2}+1}{\sqrt{2}-\sqrt{2}} + 2 \\ &= \frac{2+\sqrt{2}+1}{\sqrt{2}+\sqrt{2}} + \frac{2-\sqrt{2}+1}{\sqrt{2}-\sqrt{2}} + 4 \end{aligned}$$

$$2f(x) - 3f(-x) = (2x^2 - x - x^2) \rightarrow f(x) - 3f(-x) = 1x^2 - 2x - 1$$

$$2f(-x) - 3f(x) = x + 4x^2 - x^2 \rightarrow 4f(-x) - 9f(x) = 3x + 12x^2$$

(1, 5)

$$-4f(x) = +10x^2 + x \rightarrow f(x) = \frac{10x^2 + x}{-4} = \frac{x(10x + 1)}{-4}$$

دقت !!

$$(x+1)f(0) - 3xf(x) = 3m - 1$$

(2) - 9

$$2f(0) = 3m - 1 \rightarrow f(0) = \frac{3m-1}{2}$$

$$\rightarrow 4f(0) = (4 + 3m + 3m - 1) \rightarrow \frac{1a + 4m}{4} = \frac{3m-1}{2} \rightarrow 3a + 4m = 11m - 4$$

$$11m = 34 \rightarrow m = 3, 4$$

$$\frac{13a-1}{2} = \frac{12, 4}{2} = (6, 2) \checkmark$$

$$f(-1) + f(-1) = \frac{3+12+3}{-1} \rightarrow 2f(-1) = -18 \rightarrow f(-1) = -9$$

- 10

$$-a+b = -9$$

(2)