

$$f(x) = \begin{cases} 2x-1 & x \geq 0 \\ 2x+3 & x < 0 \end{cases}$$

$$\frac{2x+3}{x} \geq \epsilon$$

$$2x+3 \geq \epsilon x$$

$$2x \geq \epsilon x - 3$$

$$x \geq \frac{\epsilon x - 3}{2}$$

$$x < 0 \Rightarrow -\frac{3}{2} \leq x < 0$$

$$\left. \begin{array}{l} x > 0 \\ x \geq 0 \end{array} \right\} \Rightarrow x \geq 0$$

$$\textcircled{1} \cap \textcircled{2} \Rightarrow \left[-\frac{3}{2}, +\infty\right)$$

$$\frac{2(2x^3 + 3x^2 + 4x + 1)}{(2x+1)^3} \Rightarrow D_f = \mathbb{R} - \left\{-\frac{1}{2}\right\}$$

$$2x+1 \neq 0$$

$$x \neq -\frac{1}{2}$$

$$\frac{2 \cdot 2x^3 + 3 \cdot 2x^2 + 4 \cdot 2x + 2}{(2x+1)^3} = \frac{4x^3 + 6x^2 + 8x + 2}{(2x+1)^3}$$

$$\begin{array}{l} 4x^3 \div 2x^3 = 2 \\ 6x^2 \div 2x^2 = 3 \\ 8x \div 2x = 4 \\ 2 \div 2 = 1 \end{array} \Rightarrow 2x^3 + 3x^2 + 4x + 1$$

$$\frac{2x^3 + 3x^2 + 4x + 1}{(2x+1)^3} = \frac{2x^3 + 3x^2 + 4x + 1}{(2x+1)^3} = \frac{2x^3 + 3x^2 + 4x + 1}{(2x+1)^3} = \frac{2x^3 + 3x^2 + 4x + 1}{(2x+1)^3}$$

$$\frac{2x^3 + 3x^2 + 4x + 1}{(2x+1)^3}$$

$$x=0 \Rightarrow \left. \begin{aligned} f(a) &= \frac{-r}{-1} = r \\ g(r) &= c \end{aligned} \right] \Rightarrow c=r$$

$$x=1 \Rightarrow g(r)=r$$

$$r = \frac{a+r}{b+1}$$

$$x=-1 \Rightarrow g(r)=1 \quad 1 = \frac{r-a}{b-1} \Rightarrow b-1 = r-a$$

$$a = r-b$$

$$\frac{a-b}{b+1} = r \Rightarrow rb+r = a-b$$

$$b=r$$

$$b = \frac{1}{r}$$

$$\frac{1}{r} + r = \frac{a}{r}$$

$$x=0 \Rightarrow \frac{-1}{c} = \frac{-1}{b} \Rightarrow c=b$$

$$x^r + ax + b = (x-c)^r = x^r - rax + c^r$$

$$b = c^r, b=c \Rightarrow b=c=1$$

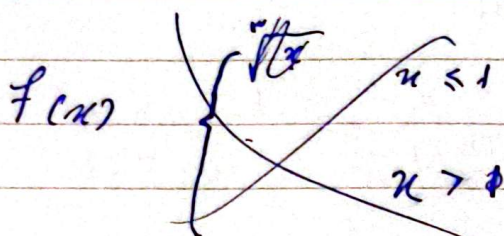
$$a = -rc = -r$$

$$1+1-r=0$$

$$\frac{x}{1} = \frac{x}{1}$$

$$(x-1)^2 x + (x+1)^2 (-x) = \quad \text{--- 0}$$

$$x((x-1)^2 - (x+1)^2) = -1x \times x = -1x^2$$



$$1 - x = x$$

$$-x = x$$

$$x = -1 \Rightarrow$$

$$\sqrt{-1} + 1 = \textcircled{1}$$

$$1 - x = -1$$

$$x = 1 \Rightarrow \sqrt{1} = 1$$

$$1 + 1 = \textcircled{2}$$

$$x + \sqrt{x} = 4$$

$$t^2 + t - 4 = 0$$

$$(t+w)(t-r) \Rightarrow t = -w \times$$

$$t = r \sqrt{}$$

$$\sqrt{x} = r$$

$$x = r^2$$

$$x + \sqrt{x} = 4 \Rightarrow x = 4$$

$$\textcircled{4}$$

$$(x-1)^2 + (x-1) + (1-x)^2 + (1-x)$$

$$(x-1)^2 - (x-1)^2 + (x-1) - (x-1) = \textcircled{0}$$

(۳)

۹- دایره مشترک ۱

$$2\sqrt{\varepsilon - 3a} + 2k - 2 - \sqrt{b - \varepsilon} - 3k - 1$$

۱- (صورت زیر را، اینجا باید صفر شود.)

$$\sqrt{b - \varepsilon} = 0 \Rightarrow b = \varepsilon$$

$$\sqrt{\varepsilon - 3a} = 0 \Rightarrow a = \frac{\varepsilon}{3}$$

$$2k - 3k - k - 2 = 0$$

$$-2k = 2$$

$$k = -1$$

$$2a \frac{\varepsilon}{3} - \frac{\varepsilon}{2} + 1 \quad (۳)$$

۱۰-

$$\begin{aligned} x + y &\geq 0 \\ x &\geq -1 \end{aligned}$$

$$D_f = [-1, y]$$

$$m - x \geq 0$$

$$\left. \begin{aligned} m &\geq x \\ y &\geq x \end{aligned} \right\} \Rightarrow m = y$$

$$g(x) = \sqrt{4+x} = 2\sqrt{x}$$

$$f(x) = 2\sqrt{x} = 4\sqrt{x}$$

$$f(x) = 1\sqrt{x}$$

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

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

$$n + m = 1\sqrt{x} - y + y = \boxed{1\sqrt{x} + 0}$$

dn