

در مشتق دایره ای

میربوست

1

$0^+ \Rightarrow f(n) = 1$
 $0^- \Rightarrow f(n) = -1$
 $f(n) = \begin{cases} a \sqrt{n} & n < 1 \\ b \sqrt{n} & n > 1 \end{cases}$

$\frac{a+b}{2} = 1$
 $a + b = 2$

$f'(1) = 1$
 $f'(1) = \frac{1}{2}b$
 $b = 2$
 $a = 0$
 $a + b = 2$

2

$y = (b - y) \cdot x = -\sqrt{3} a^{-\frac{1}{2}} y'(20) \rightarrow (-\sqrt{3}) \cdot (-\frac{1}{4}) \cdot a^{-\frac{3}{4}} = \frac{\sqrt{3}}{4}$

3

$f(n) = \begin{cases} b & n < a \\ \frac{1}{n} & n > a \end{cases}$
 $\frac{1}{a} = b + c \Rightarrow \boxed{ba + c = 1}$
 $\Rightarrow \boxed{AC < 2}$

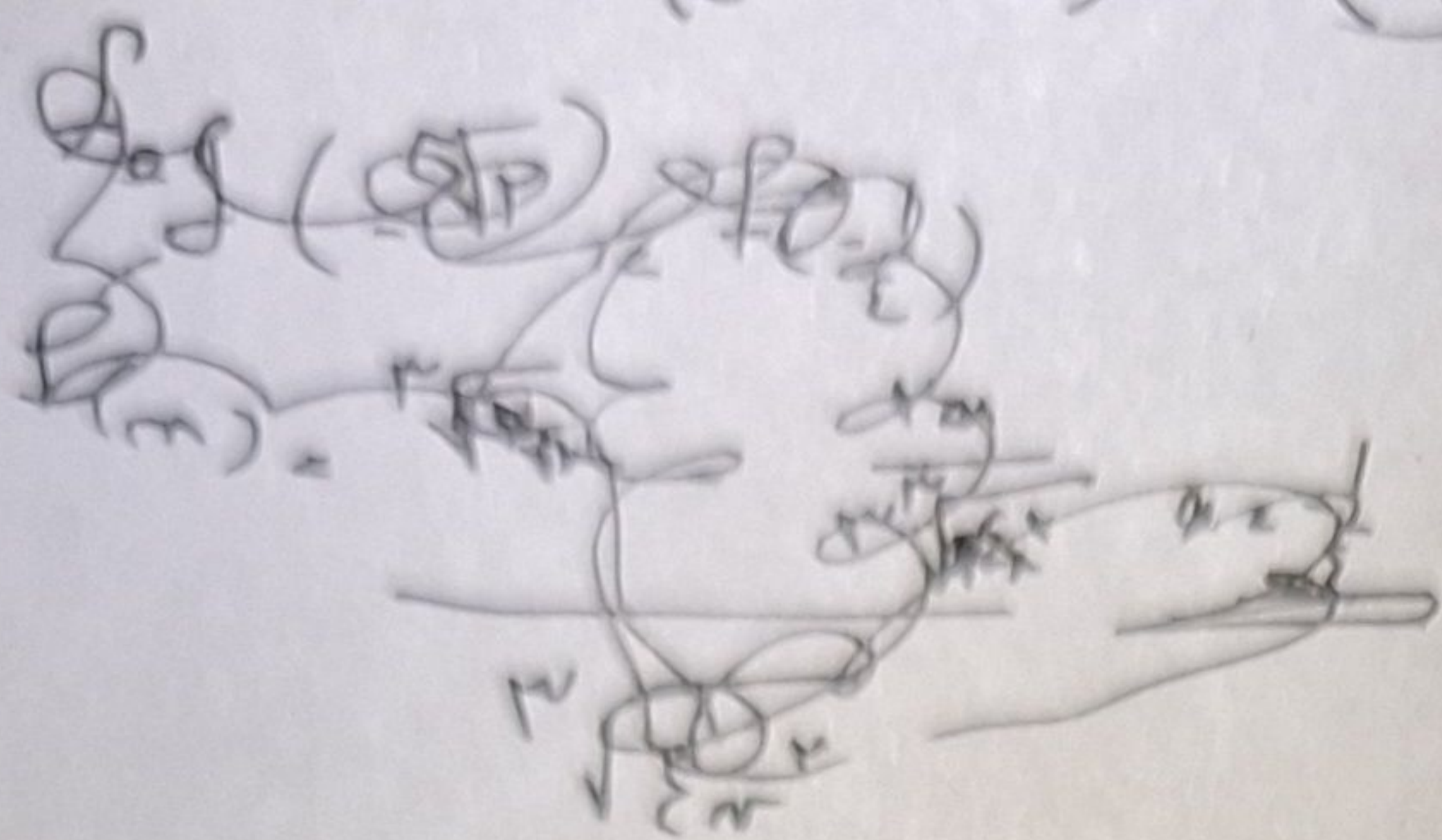
$b = \frac{-1}{a^2} \Rightarrow \boxed{ab = -1}$
~~...~~

4

$f(n) = \begin{cases} a & n < a \\ m(n-a) & n > a \end{cases}$
 $m \geq 0$
 if $m < 0 \Rightarrow f(a) = 0$
 $f'_a(a) \times$
 if $m < 1 \Rightarrow f'_a(a) = 0$ ✓
 $f'_a(a) < 1$
 if $m \geq 1 \Rightarrow f'_a(a) = 0$
 $f'_a(a) = m/(n-a) = 0 \times$
 $m \geq 1$

$$g'(\sqrt{r}) \cdot f'(g(\sqrt{r})) = (f \circ g)'(\sqrt{r})$$

(5)



$$f(g(m)) \cdot \frac{1}{\sqrt{r}g(m)} = \frac{1}{\sqrt{r} \cdot \frac{r}{\sqrt{r}}} = \frac{1}{r}$$

$$(f(g(m)))' = 1$$

$$f(r) = -a \Rightarrow f'(r) = f'(r) = -a \text{ and } r \Rightarrow r a = -r \Rightarrow a = -1, 0$$

(6)

$$f(r) = \frac{r}{r} - 1 = -\frac{1}{r} \Rightarrow \frac{-1}{r} = \frac{-1}{r} \cdot \frac{r}{r} = \left(-\frac{1}{r}\right)$$

$$f'(r) = 1, 0$$

$$(f \circ g)'(g(m)) = f'(g(m)) \cdot g'(m) \Rightarrow f'(r) \cdot (g(m))' = r a$$

$$\left(\frac{r}{r-1}\right)' = -\frac{1}{r} \cdot \frac{r}{(r-1)^2} \cdot r a = -\frac{1}{r} \cdot \frac{1}{r} \cdot \frac{r}{r-1} = \frac{1}{r-1}$$

$$\Rightarrow (f \circ g)' = \frac{1}{r-1} \cdot \frac{r}{r-1} = \frac{r}{(r-1)^2}$$

$$g'(m) = f'(m+1) \cdot r \cdot f'(r_{m+1}) \xrightarrow{r < r} g'(-1) = f'(-1) \cdot r \cdot f'(\varepsilon) = \frac{r}{r} \cdot \frac{r}{r} = 1, 0$$

(7)

9

$$\lim_{h \rightarrow 0} \frac{f'(0-h) - f'(0-h) + 2}{h(0-h)} \xrightarrow{HOP} \frac{0}{0}$$

$$\frac{-f'(0-h) + f'(0-h) + 2f'(0-h)}{\frac{0-h-1}{0-h}} = \frac{-f'(0) + f'(0) + 2f'(0)}{0} = \frac{f'(0)}{0}$$

$$f'(0) = \sqrt{0+1} = 1 \quad \frac{1}{\sqrt{(0+1)^2}} = \frac{1}{1} = 1$$

$\frac{1}{1}$

10

$$4y - 3x = 1 \Rightarrow \frac{1}{2} \xrightarrow{\text{ضرب}} \frac{1}{2} \xrightarrow{\text{مکمل بنائیں}} \frac{1}{2} = -2$$

$$y < 0 \Rightarrow x < 0 \Rightarrow y < 2x - 2 \Rightarrow \text{نئی ضافہ ہے} = -2$$

$$2x - 2 < 0 \Rightarrow x < 1 \Rightarrow y < 2 \Rightarrow \frac{1}{2}$$