

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

نقشه
 $x=0$ به b
 $x=1 \Rightarrow \frac{1}{\sqrt{x}} = \frac{b+2x}{3\sqrt{x^2}} \quad x=1, \quad 1 = \frac{2b}{3} \quad b = \frac{3}{2}$

$f(x) = \frac{4-2x}{\sqrt{x^2}} \Rightarrow -2 \frac{1}{\sqrt{x^2}} - \frac{2x(4-2x)}{3\sqrt{x^4}} = \frac{-\frac{1}{2} + \frac{10+2x}{3}}{x^2} = \frac{\sqrt{x}}{3}$
 $f'(1) = \frac{1}{3}$
 $g'(x) = \left(\frac{2x-4}{2\sqrt{x^2-4x+4}} + \frac{3}{2\sqrt{4x^2}} \right) \sqrt{x^2} - \left(\frac{2x}{\sqrt{x^2}} \times (\sqrt{x^2-4x+4} + 2x) \right) = \frac{-10-2x}{4}$

$ab+c = \frac{1}{a} \Rightarrow a^2b+ac=1 \quad ac=2$
 $b = \frac{-1}{a^2} \Rightarrow a^2b = -1$

$f'(a) \neq f'_+(a)$ نقلاً از
 $m=0 \rightarrow f'(a) = f'_+(a) \quad x \in \mathbb{R}$
 $m=1 \rightarrow \begin{cases} f'(a)=0 \\ f'_+(a)=1 \end{cases} \rightarrow f'(a) \neq f'_+(a)$
 $m \geq 2 \rightarrow \begin{cases} f'(a)=0 \\ f'_+(a)=0 \end{cases} \rightarrow f'(a) = f'_+(a)$
نقطة
به مقدار صحیح m

$f(g(x)) = \frac{1}{\sqrt{2x}} \quad g(x) = \frac{1}{2x^2}$
 $f(g(x)) = \frac{1}{\sqrt{\frac{x}{2x^2}}} = x \rightarrow (f(g(x)))' = 1$

$$f(3) = -3a - 5 = -\frac{1}{3} - a + 5 + 3a = 2 \Rightarrow a = -\frac{2}{3}$$

$$f'(u) = -a = \frac{2}{3}$$

$$\frac{-\frac{1}{x}}{\frac{2}{x}} = -\frac{1}{2} \quad \checkmark$$

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$$g'\left(\frac{x}{\sqrt{x}}\right) \times f'\left(g\left(\frac{x}{\sqrt{x}}\right)\right) = \frac{-\frac{12}{\sqrt{x}} \times 32 \times 2}{-12 \times \sqrt{x}} = 2 \quad \checkmark$$

$$f' = 32x$$

$$g' = \frac{-12x}{32\sqrt{(x-1)^2}} \Rightarrow g'\left(\frac{x}{\sqrt{x}}\right) = -\frac{12}{\sqrt{x}}$$

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$$g'(n) = f'(n+1) + 3f'(3n+1) \stackrel{n=2}{=} f'(-1) + 3f'(5)$$

$$f'(5) = f'(-1) \quad \frac{2}{5} + 3 \times \frac{2}{5} = 2 \quad \checkmark$$

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$$\frac{-2f(\omega)f'(\omega) + 3f'(\omega)}{\omega}$$

2

$$= \frac{-100}{12} + \frac{\sqrt{\omega}}{12} = \frac{-2\omega}{12 \times \omega} = -\frac{\omega}{6}$$

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$$= -\frac{\omega}{6} \quad \checkmark$$

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$$f(\omega) = 2 \quad f'(\omega) = \sqrt[3]{n+3} + (n-5) \frac{1}{3\sqrt[3]{(n+3)^2}} = 2 + \frac{1}{12} = \frac{25}{12}$$

$$m = -2 = 2n - 6 \Rightarrow n = 1 \Rightarrow y = 2 \quad \checkmark$$

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