

$a + 1 = b$ $a + \sqrt{x^2} = a + x $ $\frac{b}{\sqrt[3]{1}} = 1 \rightarrow \begin{matrix} b=3 \\ a=2 \end{matrix}$ $a+b=5$	$f'(x) = \begin{cases} -1 & ; x < 0 \\ +1 & ; 0 < x < 1 \\ \frac{b}{\sqrt[3]{x}} & ; x > 1 \end{cases}$	۱
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در نقطه $x=0$ مشتق ناپذیر، در $x=1$ مشتق پذیر است.

$g(x) = \frac{ x-2 + \sqrt{3}x}{\sqrt[3]{x^2}}$	$f(x) = \frac{ 2x-4 }{\sqrt[3]{x^2}}$	$f'(1) - 2g'(1) = \frac{\sqrt{3}}{3}$
$(f - 2g(x))' = \frac{-2x+4}{\sqrt[3]{x^2}} - \frac{-2x+4 + 2\sqrt{3}x}{\sqrt[3]{x^2}} = \frac{-2\sqrt{3}x}{\sqrt[3]{x^2}} = -2\sqrt{3}x^{\frac{1}{3}}$		
$-2\sqrt{3}x^{\frac{1}{3} - \frac{2}{3}} = -2\sqrt{3}x^{-\frac{1}{3}} \rightarrow (f - 2g(x))' = \frac{2\sqrt{3}}{3}x^{-\frac{1}{3}} \Rightarrow x=1 \Rightarrow \frac{\sqrt{3}}{3}$		

$ab + c = \frac{1}{a}$ $-\frac{1}{a^2} = b \rightarrow -\frac{1}{a} + c = \frac{1}{a}$ $c = \frac{2}{a} \rightarrow ac = 2$	$f'(x) = \begin{cases} b & ; x < a \\ -\frac{1}{x^2} & ; x \geq a \end{cases}$	۳
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$f(x) = \begin{cases} b & ; x < a \\ b + (x-a)^m & ; x \geq a \end{cases}$	$f'(x) = \begin{cases} 0 & ; x < a \\ m(x-a)^{m-1} & ; x \geq a \end{cases}$	۴
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$m > 0$ $\hookrightarrow$ در نقطه a مشتق زیادت دارد.
 در اعداد صحیح به ازای $m=1$ مقدار مشتق ۱ در به ازای $m > 1$ صفر به ازای $m < 1$ $-\infty + \infty$ است.
 پس در نتیجه، مقدار $m=1$ قابل قبول است.

$(f \circ g(\sqrt[3]{x}))' \Rightarrow f \circ g = \sqrt[3]{g(x) - g(x) } = \sqrt[3]{\frac{1}{2x^3}}$ $g(x) = \frac{1}{2x^3}$ $= \sqrt[3]{x^3} = x \rightarrow (f(g(x)))' = 1$	۵
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$$f'(r) = -a$$

$$f(r) = -ra - 8$$

$$f'(r) - f(r) = r$$

$$-a + ra + 8 = r \rightarrow ra = -r$$

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

$$\frac{f(r)}{f'(r)} = \frac{-\frac{1}{r}}{-\frac{1}{r}} = -\frac{1}{r}$$

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$$(f \circ g)'(\frac{r}{\sqrt{\lambda}}) = g'(\frac{r}{\sqrt{\lambda}}) \times f'(g(\frac{r}{\sqrt{\lambda}})) = -\frac{\frac{r}{\sqrt{\lambda}}}{\sqrt{(x^2-1)^2}} \times 22 \times 2$$

$$g(\frac{r}{\sqrt{\lambda}}) = \frac{1}{\frac{1}{r}} = r$$

$$= \frac{-r}{\sqrt{(x^2-1)^2}} \times 22 \times 2$$

$$f(g(\frac{r}{\sqrt{\lambda}})) = (x \left[\frac{1}{r} \right]) + 1 = 1/x + 1 = \frac{-r}{\sqrt{(x^2-1)^2}} \times 22 \times 2$$

$$= \frac{-r \times \frac{r}{r\sqrt{r}}}{r \times \frac{1}{r}} \times 22 \times 2 = -121\sqrt{r} \times 4$$

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$$g'(n) = f'(n+1) + r f'(rn+10)$$

$$f'(-1) = \frac{r}{r} \quad T=8$$

$$g'(-2) = f'(-1) + r f'(r)$$

$$f'(1) = f'(-1)$$

$$g'(-2) = r f'(-1) = r \times \frac{r}{r} = r$$

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$$\lim_{h \rightarrow 0} \frac{f^2(\delta-h) - r f(\delta-h) + r}{h(\delta-h)} \xrightarrow{0/0} \frac{-r f(\delta) f'(\delta) + r f'(\delta)}{r}$$

$$f^2(\delta) - r f(\delta) + r = 0$$

$$f(n) = (x-r) \sqrt{x+r} \rightarrow f'(\delta) = 1 + \frac{1}{r \times r} = \frac{r+1}{r^2}$$

$$-\frac{f'(\delta)}{\delta} = -\frac{r\delta}{r^2 \times \delta} = -\frac{1}{r}$$

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$$y = rx + 1$$

$$d: -rx + b \rightarrow f'(n) = -r$$

$$y = \frac{1}{r}x + \frac{1}{r} \rightarrow m = -r$$

$$rx - r = -r$$

$$x = 1$$

$$d: -rx + r$$

$$f(1) = r$$

$$A(1, r)$$

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