

$d = ax^2 + 2ax + 1 \Rightarrow 2ax + 1 = 0$
 $x = \frac{-1}{a} \Rightarrow a = \frac{-1}{x} = f'(x)$

$\frac{x-1}{x-(-1)} = \frac{1}{x} \Rightarrow \sqrt{Ax-1} = \frac{A+x}{x} \Rightarrow x \geq \frac{1}{a}$
 $d: y = \frac{1}{x}x + \frac{2}{x}x$
 $A^2 - 9 = A^2 + 1A + 14$
 $A^2 + (1-9a)A + 2d = 0 \Rightarrow (1-9a)^2 - 100 = 0$
 $\Delta = 0 \rightarrow$ ملائمت! $1-9a = \pm 10 \Rightarrow a = \frac{-9}{9} = -1$ or $a = \frac{11}{9}$
 $\sqrt{2a-1} \Rightarrow \sqrt{9} = 3$
 $f(x) = f(x)$ زیر اذکار غ ق ق \rightarrow منفی \rightarrow منفی

$f(x) = \frac{x}{x} = \frac{(x+m)x - x - m}{14}$
 $1 + 5m - 2 - m = 14 \Rightarrow 4m = 15 \Rightarrow m = \frac{15}{4}$
 $\frac{(x+1)^2}{x+3} = 1 \Rightarrow m+n = 1+2 = 3$
 $\sum_{x=1}^n x = 1 = n$

$f(x) = \frac{(x-\sin)(\sin^2 + x\sin + 1)}{(x-\sin)(x+\sin)}$
 $x = \frac{9\pi}{12} = \cos(\frac{9\pi}{12}) = \frac{-1}{2}$
 $(fg-f)'(x) = \frac{1 - \sin^2 - x\sin - 1}{x+\sin} = (-\sin)' = -\cos$

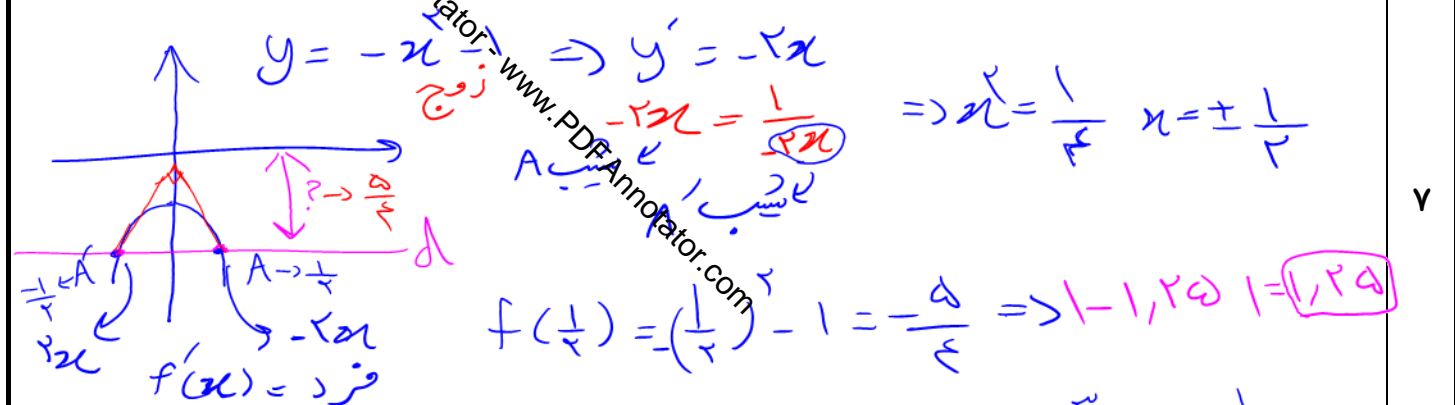
$g(x) = \frac{1}{x^2}$
 $f(x) = -\frac{1}{\sqrt{x}}$
 $\rightarrow f \circ g: \frac{-1}{\sqrt{x(\frac{1}{x^2})}} = -2x$
 $(f \circ g)'(x) = -2$

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$$\lim_{x \rightarrow 0} \frac{f(x) - 1}{x} = \frac{0}{0} \Rightarrow \text{H.o.P} \lim_{x \rightarrow 0} f'(x) = \left[\left(\frac{-1+x}{1+x} \right)^2 \right]$$

$$y(x) = \frac{f(x) - 1}{x} \quad y(-1) = \left(\frac{-1}{1} \right)^2 = \boxed{\frac{1}{4}}$$

$\sin x \sim x$
 $x \rightarrow 0$



$$f(x) = 12x^{\frac{3}{2}} + 4x^{\frac{1}{2}} \rightarrow f'(x) = 18x^{\frac{1}{2}} + 2x^{-\frac{1}{2}}$$

$$(4) d = \frac{12x^{\frac{3}{2}} + 4x^{\frac{1}{2}}}{x - 0} = 12x^{\frac{1}{2}} + 4x^{-\frac{1}{2}}$$

$$12x^{\frac{1}{2}} - 2x^{-\frac{1}{2}} = \frac{1}{x} (12x^2 - 2) = 0 \Rightarrow x = \frac{1}{6}$$

$x = \frac{1}{6} \rightarrow 2\sqrt{2} + 4\sqrt{2} = \boxed{6\sqrt{2}}$

درد استیج \Rightarrow غ ق ق \rightarrow در صفر بازگشتی است و مشتق ندارد

درد استیج \Rightarrow غ ق ق \rightarrow در صفر قطع می‌کند $\Rightarrow 0 \times \times \times$

$$f(x) = -2xt + xt^2 + xt - 1 = 0$$

$$f'(x) = -2t + 2xt + 1 = 0 \Rightarrow t = \frac{1}{\sqrt{2}}$$

$$f\left(\frac{1}{\sqrt{2}}\right) = \frac{1}{\sqrt{2}}$$

$$g\left(\frac{\sqrt{5}}{2}\right) = 2 \Rightarrow (f \circ g)\left(\frac{\sqrt{5}}{2}\right) = g\left(\frac{\sqrt{5}}{2}\right) \times f'_+(x)$$

$$\frac{1}{\frac{\sqrt{5}}{2}} = \frac{2}{\sqrt{5} - 1} = \frac{2(\sqrt{5} + 1)}{5 - 1} = \frac{2(\sqrt{5} + 1)}{4} = \frac{\sqrt{5} + 1}{2} = \boxed{1}$$

$x = 2 \rightarrow 2 \leq x \leq 99$
 $[2^+] = 2 \quad f(x) = 2x^2$
 $f(x) = 12x^2$

$$\star f(g(\frac{\sqrt{5}}{2})) \Rightarrow g(\frac{\sqrt{5}}{2}) = \frac{1}{2} = 2^+ \Rightarrow f'_+(x)$$