

$$1) h(t) = \left(t - \frac{1}{t}\right)^{3/2}$$

$$h'(t) = \frac{3}{2} \left(t - \frac{1}{t}\right)^{1/2} \left(t - \frac{1}{t}\right)'$$

$$= \frac{3}{2} \left(t - \frac{1}{t}\right)^{1/2} \left(1 + \frac{1}{t^2}\right)$$

$$\left(t - \frac{1}{t}\right)' = 1 - \frac{-1}{t^2}$$

$$= 1 + \frac{1}{t^2}$$

$$f'(g(x)) \cdot g'(x)$$

$$f(g(x)) = f(3)$$

$$f'(g(x)) = f'(3)$$