

1. Find the derivative of  $f(x) = \sec(x^4) \ln(9x - 8)$ .

2. Find the derivative of  $g(x) = \sqrt{3x} - (\tan(7x))^{-1}$ .

3. Find the derivative of  $h(t) = \frac{t \cos(t^2)}{\ln(\tan(t))}$ .

4. Find  $\frac{d}{dx} \frac{e^{-3x}}{\csc(5x^3)}$ .

5. Find  $\frac{d}{dx} 3^{\cot(7x)}$ .

6. Find  $\frac{d}{dx} e^{x^2+x} \ln(3x)$ .

7. Find  $\frac{d}{dt} \sin^3(5t - 2)$ .