

Name: _____

Please take your time and answer each question clearly and carefully. For this quiz, you will not need a calculator. Do not use one.

1. Find the derivative of each of the following functions. Be sure to carefully apply the appropriate rules for products, exponents, powers, etc.

(a) $P(t) = 10000e^{6t}$

(b) $f(q) = q^2 \cos(q) + 2q + 1$

(c) $g(x) = 8x^{5/4} + x \ln(x)$

2. Compute the derivative of the following function. You will need to use the chain rule.

$$F(x) = 7e^{\sin(x)} + \cos(x^2 + 7x + 1)$$