

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 3.2**

Applying derivatives to trigonometric and exponential functions.

**More Questions****Example** Differentiate.

a.  $y = 10^{\tan x}$

b.  $y = 2^{3x}$

c.  $f(x) = x^4 4^x$

d.  $g(x) = e^{2x^2+x}$

e.  $y = \frac{x}{10^x + 5}$

f.  $y = \log_2(\sqrt{x-5})$

g.  $g(t) = \ln(t^2 e^{-t^2})$

h.  $y = \frac{e^{4x}}{x}$