

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

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

**Learning Goal 3.3**

Using more derivative rules.

**More Questions**

1. Find the third derivative of the following functions.

a.  $f(x) = \frac{1}{x^5}$

c.  $h(x) = (4 - x)^3$

e.  $y = \frac{1}{(1 - 4x^3)^2}$

g.  $y^2 = 1 + x^2$

b.  $g(x) = -4x^5 + 3x^2 - 5/x^2$

d.  $f(x) = \sin(x^2 + 1)$

f.  $g(x) = x \cos\left(\frac{1}{x}\right)$

h.  $\sqrt{x} + \sqrt{y} = 9$