Name: _____   Date: _____

Learning Goal 3.3	Using more derivative rules.

More Questions

1. Use implicit differentiation to find the following derivatives.

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

b. $x^2 + xy + y^2 = 7$

c. $x^3 + xy^2 = y^3 + yx^2$

d. $4\cos x \sin y = 1$

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

f. $\tan\left(\dfrac{x}{y}\right) = x + y$

g. $\sin(x + y) = xy$

h. $\dfrac{1}{x} + \dfrac{1}{y} = 7$

i. $y = (x + 1)^2(x + 2)^3$

j. $y = (3x + 2)^4(5x - 1)^2$

k. $y = (x - 1)^2(x + 1)^3(x + 3)^4$

l. $y = \dfrac{\sqrt{4 + 3x^2}}{\sqrt[3]{x^2 + 1}}$