Panther ID: _____

1. (10 pts) Find the derivative of each of the following functions. Simplify your answer as much as possible (2.5pts each).

(a)
$$y = \sin^3(3x^3)$$
 (b) $y = \ln(\sec x)$

(c) $f(x) = x^2 e^{-3x}$

(d) $g(x) = x^{2^x}$