Remember to show <u>all</u> of your work.

Problem 1. In all cases, differentiate and solve for y' $\left(\text{or } \frac{dy}{dx} \text{ if you prefer to write it that way}\right)$:

(a) (3 points) $y = e^{3x} \arcsin(3x - 2)$

(b) (3 points) $-9 = 3x^2 y^3 + x \tan(y)$

(c) (4 points) $y = x^{2\cos(3x)}$