Show all work, including mental steps, in a clearly organized way that speaks for itself. Use proper mathematical notation, identifying expressions by their proper symbols (introducing them if necessary), and use arrows and equal signs when appropriate. Always simplify expressions. BOX final short answers. LABEL parts of problem. Keep answers EXACT (not decimal approximations, if possible).

1) Using the derivative formula \( \frac{d}{dx} \arcsin(x) = \frac{1}{\sqrt{1-x^2}} \), evaluate and simplify \( \frac{d}{dx} \arcsin(4x^{3/2}) \). In your final result, combine all powers into a single power.

2) \( x^2y = y - 1 \)
   a) Use implicit differentiation to evaluate \( \frac{dy}{dx} \).
   b) Write the tangent-line equation for this curve at the point \((x,y) = (0,1)\), simplifying it to slope-intercept form. Where does this tangent-line intersect the x-axis?