Problem 1: Find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ given that:

\[ x = \frac{1}{2}t^2 + 1 \quad y = t^3 + t^2 \]

Problem 2: Find an equation of the tangent line to the curve at the point corresponding to the given value of the parameter.

\[ x = t - \frac{1}{t} \quad y = 4 + t^2 \quad t = 1 \]