(4pts) 1. Eliminate the parameter $t$ to find a Cartesian equation of the curve $x = \ln t, y = \sqrt{t}, \ t \geq 1$.

(4pts) 2. Which points on $x = 3t - t^2, y = t^3 - 12$ have tangents with slope 3?

(4pts) 3. Find the polar equation for $x^2 + y^2 = 2x$. 