1. Find the particular solution of the DE

\[
\frac{dy}{dx} = \frac{xy + 3y - x - 3}{xy - 2y + x - 2}, \quad y(6) = 2
\]
2. Find the general solution of the first order linear DE:

\[(1 + x^2) \frac{dy}{dx} - 2xy = (1 + x^2) \tan^{-1}(x)\]