Q#1. Solve \( (x^2 - xy - y^2)dx + xydy = 0 \) (Homogeneous DE). Tell also degree of homogeneity.

Q#2. Tell if the following DE is homogeneous or Bernoulli:

\[
\frac{1}{y^2} \frac{dy}{dx} + \frac{1}{\sqrt{x}} y^{-1} + x^3 y^{-1/2} = 0
\]

Give the substitution you will use to solve it and transform the equation to the form

\[
\frac{du}{dx} + p(x)u = Q(x)
\]