Differential Equations
Problem Set 5
Exact Differential Equations 2

1. Solve each equation.

   (a) $(x^2 + y^2 + x)dx + xydy = 0$

   (b) $(y^2 + y)dx - xdy = 0$

2. Each of following equations has an integrating factor of the form $x^m y^n$. For each each equation find integrating factor and its solution.

   (a) $ydx - xdy = 0$

   (b) $(y^2 - xy)dx + x^2 dy = 0$