Differential Equations
Problem Set 4
Exact Differential Equations 1

Show that each equation is exact and find its solution.

1. $(e^x \sin y + e^{-y})dx - (xe^{-y} - e^x \cos y)dy = 0$

2. $(y^2 + 2xy + 1)dx + (2xy + x^2)dy = 0$