## King Fahd University of Petroleum & Minerals Department of Mathematics & Statistics Math 202-16 Semester 162 Quiz # 2

Name:\_\_\_\_\_\_ID#:\_\_\_\_\_

**Exercise:** Solve the differential equation

$$\frac{dy}{dx} - xy = 0$$

Exercise: Is the differential equation

$$2xydy - x^2dx = 0$$

exact ? If not, find an integrating factor  $\mu(x)$ , then solve the differential equation.