

## DEN Homework # 2

Solve the problems and then bring your work to the lab in the third week of school.

1. For the equation  $y' - 2xy = e^{x^2}$  find its general solution.

2. For the following equations, sketch the slope field and find stationary solutions (if there are any). If you do find some stationary solutions, determine their stability.

a)  $y' = y^4 - y^3$ ,

b)  $y' = y(x^2 - y)$ .