**Homework Assignment #3  
Due: Tuesday, April 3 by 5:00 p.m.**(*Follow all homework submission requirements posted on myCourses!*)

**Problem #1:**

Solve the following linear programming problem by maximizing the value of the function, *f(x,y)*, subject to the given constraints.

The values of both *x* and *y* should be non-negative.

***Question*:** What are the values of *x* & *y* which maximize the value of *f(x,y)* and what is that maximum value of *f(x,y)*?

**Problem #2:**

Solve the following constrained non-linear optimization problem by maximizing the value of the function, *f(x,y)*, subject to the given constraints.

***Question*:** What are the values of *x* & *y* which maximize the value of *f(x,y)* and what is that maximum value of *f(x,y)*?

**Problem #3:**

Solve the following system of linear equations...

1. by using the Excel Solver.
2. by using matrix inversion in Excel.

***Question*:** What are the values of *x1* through *x4* which satisfy the system of linear equations? Do you get the exact same solution from both methods?