HW # 3 ( 1/23, due on 1/30, Tuesday)

3.1 (1/23) (60 pts). Assume $p_x = $2, $p_y = $3, $I = $100. Solve the U-max problem for each of the following utility functions (15 pts each):

(a) $U = x^2 y^2, x, y \geq 0$;

(b) $U = x^{1/3} y^{2/3}, x, y \geq 0$;

(c) $U = 5x + 3y, x, y \geq 0$;

(d) $U = \text{Min} \{x, y\}, x, y \geq 0$.

(Hint: Use the equal MU/$ method for (a-b), comparing MU/$ for (c), graph for (d))

3.2 (1/25) (40 pts). Solve Problems 3.4 (10 pts) and 3.6 (30 pts) on Page 112.

(Number refers to Nicholson Text )