Attendance Quiz for Lecture 13

NAME: (print!) _____

E-MAIL ADDRESS: (print!) _____

1. For the following linear programming problem

Minimize $z = 4x + 6y$ subject to

$$x + 3y \geq 5 \quad , \quad 2x + y \geq 4 \quad , \quad x \geq 0 \quad , \quad y \geq 0 \quad .$$

(i) Solve it (using any method), not forgetting to find the **optimal value**.

(ii) Set-up the **dual problem** .

(iii) Solve the dual problem (using any method), not forgetting to find the **optimal value**.

(iv) If you solved them both correctly the optimal values for (i) and (iii) are the same. Is this a coincidence? If not what theorem does it follow from?