

MA114
Quiz 8A
Spring 2005

Name Key

Row _____

1. State whether each of the following is standard or non-standard.

2pt a) Maximize $P = 3x + 2y$
subject to

$$-x + y \leq 2$$

$$x + y \leq 6$$

$$x - y \leq 2$$

$$x \geq 0, y \geq 0$$

Standard

2pt b) Maximize $P = 2x + 3y$
subject to

$$2x + y \leq 10$$

$$x + 3y \leq 10 \leftarrow x - 10 \leq -3y$$

$$x \geq 0, y \geq 0$$

Standard.

2pt c) Maximize $P = 3x - 4y$
subject to

$$-x + y \leq 3$$

$$-x + y \leq -4 \leftarrow x - y \geq 4$$

$$x \geq 0, y \geq 0$$

non-standard.