## MTH 461

## 6. The simplex method: an example

Example. Maximize

$$z = 3x_1 + x_2$$

subject to:

$$-x_1 + x_2 \le 1$$
  
 $x_1 \le 3$   
 $2x_1 + x_2 \le 7$   
 $x_1, x_2 \ge 0$ 

## Geometric interpretation of the simplex method

Recall: Maximize

$$z = 3x_1 + x_2$$

subject to:

$$-x_1 + x_2 \le 1$$

$$x_1 \le 3$$

$$2x_1 + x_2 \le 7$$

$$x_1, x_2 \ge 0$$

