

## LP Simplex Method (2)

**Solve the following LP problems using the simplex method and by Excel Solver:**

1. Minimize  $z = 5 X_1 - 4 X_2 + 6 X_3 - 8 X_4$   
Subject to  $X_1 + 2 X_2 + 2 X_3 + 4 X_4 \leq 40$   
 $- 2 X_1 + X_2 - X_3 - 2 X_4 \geq - 8$   
 $4 X_1 - 2 X_2 + X_3 - X_4 \leq 10$   
 $X_1, X_2, X_3, X_4 \geq 0$

2. Minimize  $z = - 8 X_1 - 12 X_2$   
Subject to  $10 X_1 + 20 X_2 \leq 140$   
 $6 X_1 + 8 X_2 \leq 72$   
 $X_1, X_2 \geq 0$