ITEC451
Activity 7-1

[Simplex Algorithm] Solve the following LP using Simplex Algorithm

- Decision Variables:
  - ☐ x1 = number of desks produced
  - ☐ x2 = number of tables produced
  - ☐ x3 = number of chairs produced
- The LP is:

max $z = 60x_1 + 30x_2 + 20x_3$

s.t.

$8x_1 + 6x_2 + x_3$	≤ 48	(lumber constraint)
$4x_1 + 2x_2 + 1.5\ x_3$	≤ 20	(finishing constraint)
$2x_1 + 1.5x_2 + 0.5x_3$	≤ 8	(carpentry constraint)
x_2	≤ 5	(table demand constraint)

$x_1, x_2, x_3 \geq 0$