**ITEC451**

**Activity 7 - Solutions**

1. max z = 3x1 + 2x2

 s.t. 2x1 + x2 + s1 = 100

 x1 + x2 + s2 = 80

 x1 + s3 = 40

 x1, x2, s1, s2 ≥ 0

2. min z = 50x1 + 100x2

 s.t. 7x1 + 2x2 ‑ e1 = 28

 2x1 + 12x2 ‑ e2 = 243

x1, x2, e1, e2 ≥ 0

3. min z = 3x1 + x2

 s.t. x1 ‑ e1 = 3

 x1 + x2 + s1 = 4

 2x1 ‑ x2 = 3

x1, x2, e1, s1 ≥ 0