**CS 451 - Activity 15**

objective function:  
 min z = 50*x*1 + 20*x*2 + 30*x*3 + 80*x*4

subject to:

400*x*1 + 200*x*2 + 150*x*3 + 500*x*4 ≥ 500 (calories constraint)

3*x*1 + 2*x*2 ≥ 6 (chocolate constraint)

2*x*1 + 2*x*2 + 4*x*3 + 4*x*4 ≥ 10 (sugar constraint)

2*x*1 + 4*x*2 + *x*3 + 5*x*4 ≥ 8 (fat constraint)

*x*1, *x*2, *x*3, *x*4 ≥ 0.