Graphical LP Solution

Enter the following LP problems into QM or TORA and solve them using graphical solution:

1. Minimize   costs $= X_1 + X_2$

   Subject to $-0.6 X_1 + 0.4 X_2 \leq 0$

   $0.2 X_1 + 0.1 X_2 \geq 14$

   $0.25 X_1 + 0.6 X_2 \geq 30$

   $0.15 X_1 + 0.1 X_2 \geq 8$

   $X_1, X_2 \geq 0$

2. Minimize $Z = 3 X_1 + 8 X_2$

   Subject to $X_1 + X_2 \geq 8$

   $2 X_1 - 3 X_2 \leq 0$

   $X_1 + 2 X_2 \leq 30$

   $3 X_1 - X_2 \geq 0$

   $X_1 \leq 10$

   $X_2 \geq 9$

   $X_1, X_2 \geq 0$

3. Maximize   profit $= 5 X_1 + 4 X_2$

   Subject to $6 X_1 + 4 X_2 \leq 24$

   $6 X_1 + 3 X_2 \leq 22.5$

   $X_1 + X_2 \leq 5$

   $X_1 + 2 X_2 \leq 6$

   $- X_1 + X_2 \leq 1$

   $X_2 \leq 2$

   $X_1, X_2 \geq 0$