A mining company can transport up to 30 tons of metal per week. Nickel sells for $4000 per ton but takes 200 labor-hours to mine each ton. Iron sells for $1000 per ton and takes 60 labor hours to mine. The mining company employs 100 miners who each work 40 hours per week.

Set up and solve a linear optimization problem to determine how many tons of nickel and how many tons of iron the company should mine to maximize revenue from sales. What is the maximum revenue? Try to use fractions rather than decimals.
The market price of iron changes to $2000 per ton. Repeat the analysis from question 1 with this new information.