Math 105-21 Summer Term II
Quiz 3: 6/22 Name: _____

1. (*25 points*) Define your decisions variables, your profit function, and your constraints. Then use the graph to solve. (Use the back, if you need to for calculations!)

Cardinal Furniture Company produces chairs and tables. To produce a chair the company uses 3 yards of fabric, 2 board-feet of lumber and 30 minutes of assembly workers' time. To produce a table the company uses 0 yards of fabric, 4 board-feet of lumber, and 15 minutes of assembly workers time. The company wants to plan how many chairs and tables to make so as to maximize their profit. The company knows that each chair will yield a \$60 profit and each table will yeild a \$50 profit. On monday there are 1500 yards of fabric, 3000 board-feet of lumber, and 300 hours of assembly workers' time abailable. How many chairs and tables should be produced on Monday in order to give the largest possible profit?