

MATH 131

1. Suppose a utility company can sell 250,000 kwh of electricity when the price is 5 cents per kwh (kilowatt-hr). For every one cent increase in price, demand drops by 25,000 kwh. What price will maximize total revenue?
2. Suppose that the yield of a forest is estimated to be 400 board-feet of lumber per tree if thirty trees are planted per acre. For every tree planted in excess of that (per acre), the yield is reduced by 7 board-feet per tree. How many trees should be planted per acre to maximize the total amount of lumber?