

## Cost Function

1a) A Manson game seats 400 people. At a price of \$15 a ticket, Manson usually sells 300 tickets. Manson considers raising their price. Market experts tell them for each 3 dollar increase, Manson will sell 30 less tickets per game. If prices can increase by any dollar amount, find the ticket price that will maximize the revenue. Round to the nearest cent.

1b) Manson also knows that each person attending a game spends an average of 8 dollars on concessions. Explain how this would impact the formula used on the previous problem.

2a) The WSU stadium seats 33,000 people. At a price of \$60 a ticket, WSU usually sells 30,000 tickets. WSU considers raising their price. Market experts tell them for each 15 dollar increase, WSU will sell 1000 less tickets per game. If prices can increase by any dollar amount, find the ticket price that will maximize the revenue. Round to the nearest cent.

2b) WSU also knows that each person attending a game spends an average of 20 dollars on concessions. Explain how this would impact the formula used on the previous problem.