QUIZ 6 - MATH 112

YOUR NAME:_____

Read each problem **very carefully** before starting to solve it. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [5 points] A wholesaler can sell on average 100 packs of a certain beer brand when it charges $6.00 per pack. A market analysis found that for every 25-cent discount per pack, the average order amount increases by 10 packs. Find the price per pack of beer that the business should charge to maximize its revenue. (Hint: Set z the number of 25-cent decreases in price.)

2. [5 points] Find an equation for the tangent line to the graph of $x^3 - 5x^2 + xy + y^2 = 3$ at the point $(x, y) = (2, 3)$.