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

1. Find an equation for the tangent line to the graph of the curve $x + y = xy$ at $(x, y) = (2, 2)$.

2. Suppose that a company's revenue from selling x units of a product is $R = x^2 + 500x$ dollars. If the company's sales are increasing at a rate of 50 units per month, what is the rate of change of its revenue when exactly 200 units of the product have been sold?