## Math 29 <br> Review for Exam 3

Make sure you can do the following types of problems

1. Average rates of change and slope of a secant line
2. Instantaneous rates of change and slope of a tangent line
3. The meaning of the derivative
4. Graphical differentiation
5. Basic rules of differentiation
6. The product, quotient, and chain rules
7. Given a function, find critical points, and determine where the function is increasing and decreasing
8. Given a function, find inflection points, and determine where the function is concave up and concave down
9. Given a function, find all horizontal and vertical asymptotes
10. Given all of the above information about a function, sketch its graph.
11. Optimization word problems.
