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| Group Quiz 4Dusty Wilson Math 148 – Fall 2011 No work = no credit **No calculators (or at least not too much)** | **Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Consider the  with derivatives  and . Use these to find any horizontal and vertical asymptotes, critical points, relative maximum, relative minima, and points of inflection. Then sketch the graph of the function.

A firm can produce only 48 units per week. If its total cost function is  and is total revenue function is  dollars, how many units *x* should it produce to maximize its profit? Find the maximum profit.

A kennel of 640 square feet is to be constructed as shown. The cost is $4 per running foot for the sides and $1 per running foot for the ends and dividers. What are the dimensions of the kennel that will minimize the cost?

