

Quiz 6- MAC 2311, F'11 NAME: _____ Panther ID: _____

Take-home quiz. Due Tuesday Nov. 8. No exceptions.

1. (10 pts) Sketch the graph of the function $f(x) = \frac{2+x-x^2}{(x-1)^2}$. Make sure to clearly identify asymptotes, critical points and inflection points. Sign charts for f' and f'' should be shown.

2. (10 pts) You have to built a rectangular storage container with an open top. The volume of the container should be 10 m^3 and the length of its base must be twice the width. Material for the base costs \$10 per square meter. Material for the sides costs \$6 per square meter. Find the dimensions of the container that will minimize the cost.