

Serial No.: _____ Student Name: _____ Student Number: _____
Instructor: M. Z. Abu-Sbeih Math 101- Q6 Date: 13-5-2014

Problem 1: (20 points) Consider the function $f(x) = \frac{x^2 + 1}{x}$

1. Find interval where the function is increasing and those where it is decreasing.
2. Find local extrema.
3. Find interval where the function is concave up and those where it is concave down.
4. Find inflection points.

Problem 2: (20 points) Sketch the graph of the function and label all important points on the graph

