

# Math 10850, Honors Calculus 1

Quiz 5, Thursday October 10

**Name:**

1. Give the *formal* definition of a function, and say, in terms of this definition, what are the domain and the range of a function.

2. Let  $f(x) = \sqrt{x^3 - x}$ . Find the domain of  $f$  — and as you do so, please make clear the process that you are using. Write your final answer using interval notation (by which I mean  $(a, b]$ ,  $(c, \infty)$ , etc. You may need to express your final answer as a union of intervals, for example  $(-3, 0] \cup [2, 5]$ ).