

MA 129 - Homework - September 11, 2007

Topic(s): Intermediate Value Theorem , L'Hospital's Rule

Problems from Stewart:

Chapter 2.4: 47, 48

Chapter 2 Review Exercises: 23, 24

Chapter 4.5: 49 - 52 (Just find the limits using limit rules. You do not have to graph).

Chapter 4 Review Exercises: 25 - 32.

1) Suppose $f(x)$ is continuous on $[a, b]$ and $f(x)$ is always a rational number. What can you conclude about the function $f(x)$? Prove your answer.

2) Suppose $f(x)$ is a continuous function on $[0, 1]$ and $0 \leq f(x) \leq 1$ for all x in $[0, 1]$. Prove $f(x) = x$ for some number x .