

(Math 170) Homework 8:

Due November 15, 2007

All exercises are from “The Heart of Mathematics” text book.

Exercise 1: Consider the following mathematical models

$$- R_{n+1} = R_n^3 - 3R_n$$

$$- S_{n+1} = S_n + 1$$

$$- Q_{n+1} = Q_n$$

Which of the above have equilibrium points and what are they? Are they stable or unstable?

Exercise 2: Chapter 6.3 Exercise 5

Exercise 3: Chapter 6.3 Exercise 13

Exercise 4: Chapter 6.3 Exercise 20

Exercise 5: Chapter 6.3 Exercise 21

Exercise 6: Chapter 6.3 Exercise 34

Exercise 7: Chapter 6.3 Exercise 35

Exercise 8: Chapter 6.3 Exercise 39