

MATH 113: DISCRETE STRUCTURES
READING QUESTIONS FOR MONDAY WEEK 7

Problem 1. There is a handy rule of thumb for converting between miles and kilometers which uses the Fibonacci numbers: F_n miles is approximately F_{n+1} kilometers. Indeed, 3 miles is about 5 kilometers, and 5 miles is about 8 kilometers, *etc.* Why is this true? (*Hint:* What is the ratio between consecutive Fibonacci numbers as $n \rightarrow \infty$?)