

(Math 151) Homework 1:

Due January 28, 2010

All reading and numbered exercises are from

Mathematics of the Secondary School Curriculum, I (Math 151) by H. Wu

Reading:

- Chapter 1.1 - Chapter 1.5

Exercises

Exercise 1: Recall our definition of the rational numbers as equivalence classes. Prove that addition is well defined on equivalence classes. I.e. that if $\frac{a}{b} = \frac{a'}{b'}$ and $\frac{c}{d} = \frac{c'}{d'}$ then $\frac{a}{b} + \frac{c}{d} = \frac{a'}{b'} + \frac{c'}{d'}$.

Exercise 2: Chapter 1 Section 1 Exercise 2

Exercise 3: Chapter 1 Section 1 Exercise 6

Exercise 4: Chapter 1 Section 1 Exercise 8

Exercise 5: Chapter 1 Section 2 Exercise 2

Exercise 6: Chapter 1 Section 2 Exercise 4

Exercise 7: Chapter 1 Section 2 Exercise 8

Exercise 8: Chapter 1 Section 2 Exercise 12

Exercise 9: Chapter 1 Section 2 Exercise 13

Exercise 10: Chapter 1 Section 3 Exercise 1

Exercise 11: Chapter 1 Section 3 Exercise 11

Exercise 12: Chapter 1 Section 3 Exercise 12