

Homework 0 – Due Monday August 28.

Prove that $\sqrt{2}$ is irrational.

Homework 1 – Due Wednesday September 6th.

Solve each of these problems:

Chapter 1: 1, 4, 8

Chapter 2: a, d, f, 1, 3, 4, 8, 11, 12, 13

Write out a formal, typed, complete, proof for problem 2.a in chapter 2.

Homework 2 – Due Monday September 11th.

Solve each of these problems:

Chapter 3: a, b, c, d, e, f, 2, 3, 5, 13, 14

Write out a formal, typed, complete, proof for problem 10 in chapter 3.

Homework 3 – Due Monday September 18th.

Solve each of these problems:

Chapter 3: 4, 6, 7, 8, 10, 12

Chapter 4: a, b, c, 1, 2

Write out a formal, typed, complete, proof for problem 9 in chapter 3.

Homework 3 – Due Monday September 25th.

Solve each of these problems:

Chapter 4: d, 7, 12, 13

Write out a formal, typed, complete, proof for problem 4 in chapter 4.

Homework 5 – Due Monday October 9th.

Chapter 6: a-e and #1

Construct a typed theorem sheet: a sheet that lists everything you know about rings.

(It shouldn't be very long yet. We'll be adding to it throughout the term)

Homework 6 – Due Monday October 16th.

Chapter 6: f, 1, 3, 4, 5, 9, 10, 11, 12, 15, 16, 18, 22, 23

Write out a formal, typed, complete, proof for the first subring theorem in all its gory detail.
(Approximately 16 parts? I haven't counted, but there are a lot!)

Update your theorem sheet: a sheet that lists everything you know about rings.

Homework 7 – Due Monday October 23rd.

Chapter 7: a, b, c, d, e, f, g, h, i, j, x, 1, 3

Homework 8 – Due Monday October 30th.

Chapter 7: 5, 6, 9

Chapter 8: a, b, c, d, e, f, g, h, 1

Write out a formal, typed, complete, proof for problem 12 in chapter 7.

Homework 9 – Due Monday November 6th.

Chapter 8: 5, 6, 7, 9, 10

Chapter 9: a, b, c

Write out a formal, typed, complete, proof for problem 18 in chapter 8.

Homework 10 – Due Monday November 13th.

Chapter 9: d, e, f, g, h, i, j, k, 2, 3, 5, 9, 10, 11, 14

Chapter 10: a, c

Write out a formal, typed, complete, proof for problem 13 in chapter 8.

Homework 11 – Due Monday December 4th.

Chapter 11: a, b, c, d, 2, 11, 15

Chapter 12: a, b, c, d, e, f, g, h, i, 1, 2, 4