

MATH 17: KNOT THEORY
WINTER 2018
HOMEWORK #3

Problem 1. Chapter 3, Exercise 4.1

Problem 2. We mentioned in class that the determinant of a knot and its mod p rank do not depend on the choice of diagram and labeling. This is Theorem 5 of Chapter 3. Read the proof in the book and think about how to fill the gaps. Specifically, submit Exercise 4.3 of Chapter 3.

Problem 3. Read the discussion of torsion invariants at the end of Section 3.4, and find the torsion invariants of the knot 8_{18} .

Problem 4. Chapter 3, Exercise 4.4

Problem 5. Chapter 3, Exercise 4.5

Problem 6. Chapter 3, Exercise 4.6