

Math 2106-D, Foundations of Mathematical Proof
Homework 7
Due November 9 2017

Do the following problems from Judson:

Section 3.4: 7,10, 12, 27 (hint: use induction), 32, 33, 42, 45

Section 4.4: 8

Also turn in the following exercise:

A1 Consider the permutation

$$\pi = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\ 3 & 2 & 6 & 8 & 9 & 1 & 4 & 10 & 5 & 7 \end{pmatrix}.$$

Write the cycle decomposition for π . Use this to determine the order of π in S_{10} .