

Due: Wed. Nov 19

Q1

Write down all the sub groups of $\text{Perm}(\{1, 2, 3\})$.

Q2

Find the orders of the following permutations

(1234) ; (12345) ; $(123)(45)$; $(12)(34)$;
 (12) ; (123) .

Q3

Write down ^(compute) the orders of the elements 1, 2, 3, 4, 5 in $(\mathbb{Z}_6, +)$.

Q4

Write down/compute the orders of the elements 1, 2, 3, 4, 5, 6 in $(\mathbb{Z}_7 - \{0\}, \times)$.

Q5

Compute the sign of the following permutations:

(1234) ; (12345) ; $(12)(345)$; $(12)(34)$;
 (123) .