

MATH 402 Homework 5

Due Friday 10/7/16

- (1) (15 pts.) Let F_n be a regular n -gon in the Euclidean plane. Describe in detail its symmetry group $Iso(F_n)$: is it finite and if yes, how many elements does it contain? What are the elements explicitly? How do they compose with each other? Can you say what is the structure of this group?
- (2) (15 pts.) Let l be a line in the Euclidean plane. Describe in detail its symmetry group $Iso(l)$: is it finite and if yes, how many elements does it contain? What are the elements explicitly? How do they compose with each other? Can you say what is the structure of this group?
- (3) (14 pts.) Solve 6.2.13.
- (4) (6 pts.) Solve 6.3.13.