## **SUBGROUPS**

## SYMMETRY AND ESCHER, EXERCISE SET 4 (LECTURE 2)

Exercise 1. Find all subgroups of

- (1)  $D_3$ ,
- (2)  $D_4$ .

**Definition 1.** A subgroup  $H \subset G$  is called *normal* if for any  $h \in H$  and any  $g \in G$  we have  $g^{-1}hg \in H$ .

Exercise 2. Identify which subgroups of

- (1)  $D_3$
- (2)  $D_4$

are normal.

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