Section 2.1 Definitions and Examples (Part 1)

Definitions

P 1. List the identity element for the following groups. $(\mathbb{Z}, +), (Z_n^\times), \mathrm{GL}(2, Z_5), \mathrm{SL}(2, Z_7)$.

P 2. Show that $(\mathbb{Z}, +)$ is a group.