A set G with a binary operation $\cdot : G \times G \to G$ s.t.

- $\cdot$ is associative,
- $\exists e \in G$ with $e \cdot g = g \cdot e = g$ for all $g \in G$
- for each $g \in G$, there exists $g^{-1} \in G$ with $g \cdot g^{-1} = g^{-1} \cdot g = e$.