

# Useful Headers

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$\mathbb{N} \quad \mathbb{Z} \quad \mathbb{Q} \quad \mathbb{R} \quad \mathbb{C} \quad \bar{n} \quad \mathbb{Z}/n\mathbb{Z} \quad (\mathbb{Z}/n\mathbb{Z})^\times$

**Theorem 0.1.** *Every non-constant single-variable polynomial with complex coefficients has at least one complex root.*

*Proof.* Outside the reach of this course. ■

**Corollary 0.1.1.** *This is a corollary*

**Lemma 0.2.** *Likewise, a lemma*

**Definition 0.1.** A **group** is a set and binary operation with the following properties:

**Example 0.1.**  $\mathbb{Z}$  under addition is a group

*Remark.* Remarks are useful