Important Sets of Numbers

$\mathbb{N}$ = The set of natural numbers = $\{1, 2, 3, \ldots\}$

$\mathbb{Z}$ = The set of integers = $\{\ldots, -3, -2, -1, 0, 1, 2, 3, \ldots\}$

$\mathbb{Q}$ = The set of rational numbers = $\{\frac{p}{q} \mid p, q \in \mathbb{Z} \text{ and } q \neq 0\}$

$\mathbb{R}$ = The set of real numbers

$\mathbb{R} - \mathbb{Q}$ = The set of irrational numbers = $\{x \in \mathbb{R} \mid x \notin \mathbb{Q}\}$

$\mathbb{C}$ = The set of complex numbers = $\{x + iy \mid x, y \in \mathbb{R}\}$

$\mathbb{Z}^+ = \mathbb{N} = \{n \in \mathbb{Z} \mid n > 0\}$

$\mathbb{Q}^+ = \{q \in \mathbb{Q} \mid q > 0\}$

$\mathbb{R}^+ = \{x \in \mathbb{R} \mid x > 0\}$

$\mathbb{Z}^* = \mathbb{Z} - \{0\} = \{n \in \mathbb{Z} \mid n \neq 0\}$

$\mathbb{Q}^* = \mathbb{Q} - \{0\} = \{q \in \mathbb{Q} \mid q \neq 0\}$

$\mathbb{R}^* = \mathbb{R} - \{0\} = \{x \in \mathbb{R} \mid x \neq 0\}$

$\mathbb{C}^* = \mathbb{C} - \{0\} = \{z \in \mathbb{C} \mid z \neq 0\}$

$\mathbb{R}^n$ = Euclidean n-space = $\mathbb{R} \times \mathbb{R} \times \ldots \times \mathbb{R}$ (n times)