This document contains some definitions that are very useful.

Definition. Some common sets are:

1. The **natural numbers**, $\mathbb{N} = \{1, 2, 3, ...\}$. Note that some authors include 0.

2. The **rationals**, $\mathbb{Q} = \left\{ \frac{a}{b} : a, b \in \mathbb{Z}, b \neq 0 \right\}$.

3. The **real numbers**, $\mathbb{R}$, which is essentially the number line.