

- \mathcal{N} \equiv the natural numbers, $\{0, 1, 2 \dots\}$.
- \mathcal{Z} \equiv the integers, $\{\dots, -2, -1, 0, 1, 2, \dots\}$.
- $\mathcal{Z}_{+(-)}$ \equiv the positive(negative) integers.
- \mathcal{R} \equiv the real numbers, $(-\infty, \infty)$.
- $\mathcal{R}_{+(-)}$ \equiv the positive(negative) real numbers.
- \mathcal{R}^d \equiv referred to as " $r - d$ " $\equiv (-\infty, \infty) \times \dots \times (-\infty, \infty) \equiv \{(a_1, \dots, a_d) : a_i \in \mathcal{R}\}$.
- \emptyset \equiv the empty set.
- " \in " \equiv in, e.g. $x \in A$.
- " \ni " \equiv such that.
- " \exists " \equiv there exists.
- " \forall " \equiv for all.
- " \exists " \equiv for some.
- \Rightarrow \equiv implies.
- \Leftrightarrow \equiv if and only if.
- \cup \equiv union.
- \cap \equiv intersection.
- \subset \equiv subset.
- \supset \equiv superset.
- i.i.d. \equiv independent and identically distributed.
- NTS \equiv Need to show.
- \rightsquigarrow \equiv a contradiction has been established.
- \square or Q.E.D \equiv proof is complete.