

## REAL ORDER

## Why

We want to order the real numbers.<sup>1</sup>

## Definition

For  $R, S \in \mathbf{R}$  define the total order  $\succeq$  by  $R \succeq S$  if and only if  $R \subset S$ . As is usual with comparisons, we use the terms *less than* and *less than or equal to*.

## Notation

If R is less than S we write R < S. If R is less than or equal to S we write  $R \le S$ .

<sup>&</sup>lt;sup>1</sup>Future editions will expand

