0.1 Intervals

For a totally ordered set we can define a subset as being all elements with a relationship to a number. For example:

$$[a, b] = \{x : a \leq x \wedge x \leq b\}$$

This denotes a closed interval. Using the definition above we can also define an open interval:

$$(a, b) = \{x : a < x \wedge x < b\}$$