

**Definition:** A `list` of `length`  $n$  is an ordered collection of  $n$  `scalar`s separated by commas and enclosed in square brackets.

$$\mathbf{x} = (x_1, x_2, \dots, x_n)$$

Since the list is defined with the length, each list is finite. The objects with infinite length are called not lists but `sequence`s.

Many mathematicians call a list of length  $n$  a  **$n$ -tuple**. A list of length 2 is called an **ordered pair**, a list of length 3 is called an **ordered triple**.

Lists are also called **vectors**.