

# Introduction of Motion and Measurement of Distances

## Motion

A body is in a state of rest when it does not change its position with respect to time.

A body is said to be in motion when it changes its position with respect to time.

## Means of transport

Ever since ancient times, humans have devised different means of transport to traverse from one place to another.

They designed boats that resemble the shapes of animals living in water to travel across water bodies. They invented the wheel, which led to inventions like carts and other animal driven modes of transport.

During the beginning of the 19th-century humans designed the steam engine, which was followed by automobiles and motorised vehicles.



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## Length and Distance

Distance is the measure of how far or long something is. E.g.: the length of a table, or a soccer field or, how far is Mumbai from Delhi?

Length can be measured in terms of a unit. A unit is a comparison of an unknown quantity with that of a known quantity. It is required to establish a common standard or convention in order to make calculations and analysis easier worldwide.

### Traditional ways of measuring lengths

Traditional methods of measuring length were the use of the length one's foot or other body parts. But, was inconsistent since this varies from person to person and lacks uniformity.

