Velocity Formula

The speed of a body in a specific direction is the measure of Velocity.
It is represented by **V** and is articulated as

$$V = \frac{Displacement}{Time\ Taken} = \frac{s}{t}$$

Where,
the displacement is **S** and
the time taken is **t**

Since displacement is conveyed in meters and time taken in seconds. Velocity is articulated in **meters/second** or **m/s**.
In any numerical if any of these two quantities are given we can calculate the missing quantity by making use of this formula.

Velocity Solved Examples
Underneath are given the velocity based problems which helps you to understand more about it.

Problem 1: A plane moves the distance of 500 Km in 1 hr. Calculate its velocity?

Answer:
Displacement S = 500 km = 500 × 103 m,
Time taken t = 1hr = 60 × 60 = 3600 s.

$$Velocity\ is\ given\ by\ V = \frac{s}{t} = \frac{500 \times 10^3}{3600} = 139 m/s$$

Problem 2: A submarine descends 150 ft in 3 seconds. Find the Velocity of submarine?

Answer:
Known:
Distance traveled S = − 150 ft,
Time taken t = 3 seconds

$$Velocity\ is\ given\ by\ V = \frac{s}{t} = \frac{-150 ft}{3s} = -50 ft/s$$