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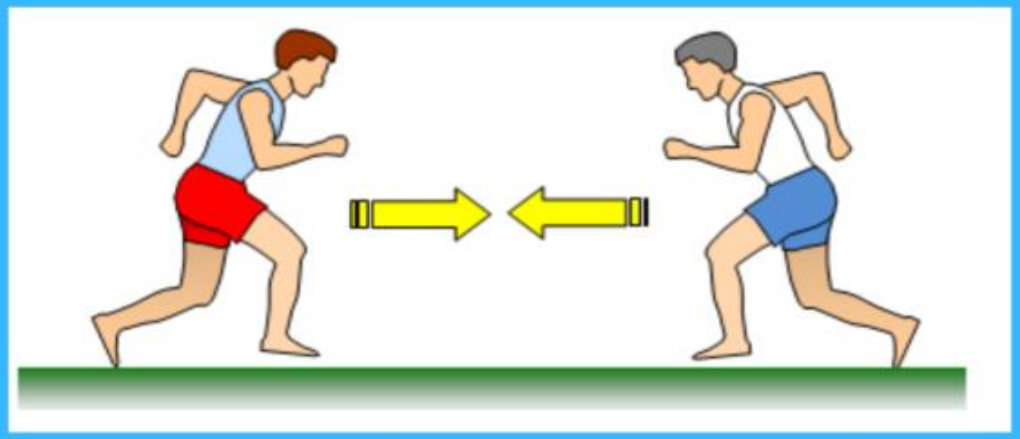
Speed And Velocity

Difference Between Speed And Velocity



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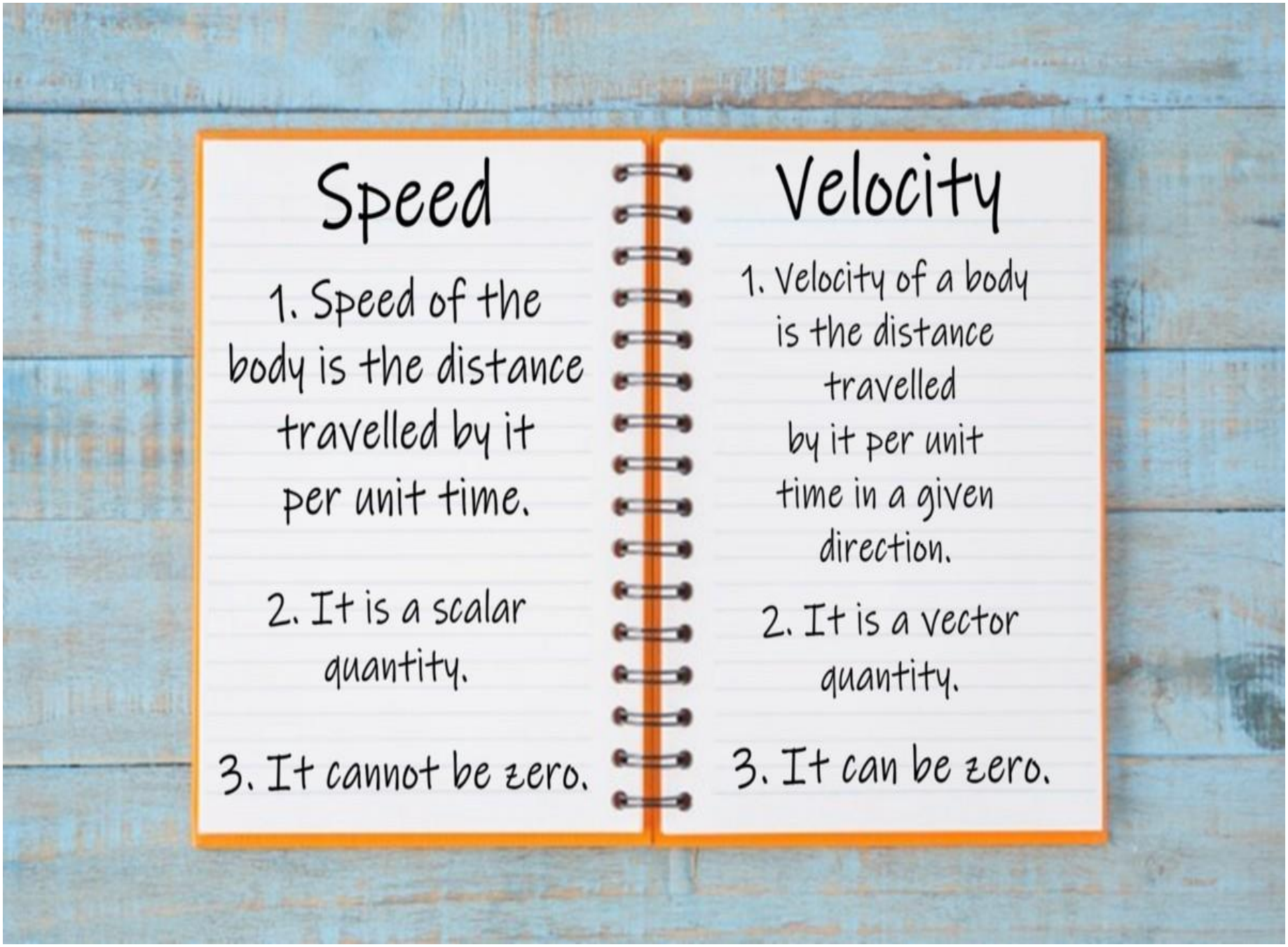
Difference Between Speed and Velocity

Speed

1. The speed is the distance travelled by a body in a unit time.
2. It is a scalar quantity. The speed does not tell us the direction of the motion of a body.
3. The speed is always positive.
4. During the circular motion, the average speed does not become zero after completing one round.

Velocity

1. The velocity is the displacement of a body in a unit time.
2. It is a vector quantity. The velocity tells us the speed and direction of the motion of a body.
3. The velocity can be positive and negative depending on the direction of the motion.
4. During the circular motion, average velocity becomes zero after completing one round.


Speed
1. Speed of the body is the distance travelled by it per unit time.
2. It is a scalar quantity.
3. It cannot be zero.
Velocity
1. Velocity of a body is the distance travelled by it per unit time in a given direction.
2. It is a vector quantity.
3. It can be zero.

SPEED

Speed = distance (d) over time (t)

$$s = \frac{d}{t}$$

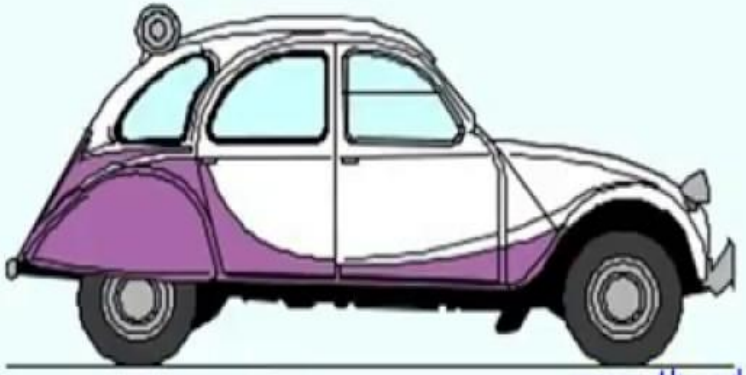
VELOCITY

Velocity (v) = displacement (Δs) over change in time (Δt)

$$\overline{v} = \frac{\Delta s}{\Delta t}$$

YOURDICTIONARY

Speed is simply how fast you are travelling...



This car is travelling at a speed of 20m/s

Velocity is "speed in a given direction"...

This car is travelling at a velocity of 20m/s east