

Name - _____

Start time - __ : __

End time - __ : __

Define acceleration and provide an example of an object experiencing acceleration.

Determine whether the statements are true or false.

- Velocity is a vector quantity that includes both speed and direction.
- Negative acceleration implies that an object is slowing down.
- Speed and velocity are always equal in magnitude.
- Acceleration is the derivative of velocity with respect to time.

A car increases its speed from 20 m/s to 40 m/s in 5 seconds. Calculate the acceleration.

Acceleration = _____

Explain the key difference between speed and velocity.
