

Answer on Question 55810, Physics, Mechanics, Relativity

Question:

Which of the following is a set of vector quantities?

- a) velocity and volume
- b) weight and displacement
- c) density and distance
- d) mass and force

Solution:

By the definition, a scalar is a quantity that has magnitude and no direction, while a vector is a physical quantity that requires the specification of both direction and magnitude. As we can see, there are 4 scalar quantities (volume, density, distance and mass) and 4 vector quantities (velocity, weight, displacement and force). Therefore, the correct answer is b) – weight and displacement is a set of vector quantities.

Answer:

- b) weight and displacement