

Answer on Question #40929, Physics, Mechanics | Kinematics | Dynamics

Question:

Acceleration is always in the direction:

- A. of the displacement
- B. of the initial velocity
- C. of the final velocity
- D. of the net force
- E. opposite to the frictional force

Answer:

Newton's second law of motion:

The acceleration of a body is directly proportional to, and in the same direction as, the net force acting on the body, and inversely proportional to its mass.

Therefore acceleration is always in the direction of the net force.

Answer: D. of the net force.