

- 7 A ball of mass m is dropped into a viscous fluid and is allowed to fall through the fluid until it is travelling at a constant speed v .

Which of the following statements is true when it is falling at terminal velocity?

- A The kinetic energy of the ball is not a constant.
- B The total mechanical energy of the ball is a constant.
- C The gravitational potential energy of the ball is decreasing at a rate of mgv .
- D The total resistive force acting on the ball is zero.

