

Mathematics Questions by Topics

Motion and Force

Question 34

Source: K10SM2Q13

Question 34

A particle of mass 5 kg, initially at rest is acted upon by two forces. One force has a magnitude of $5\sqrt{2}$ newtons acting in the north-west direction, the other force has magnitude of 10 newtons acting in the east direction. After two seconds, the magnitude of the momentum of the particle in kg ms^{-1} is equal to

- A. $50\sqrt{2}$
- B. $25\sqrt{2}$
- C. $10\sqrt{2}$
- D. $2(2 - \sqrt{2})$
- E. $2\sqrt{2}$