

Mathematics Questions by Topics

Motion and Force

Question 15

Source: K15SM2Q15

Question 15

The position vector of a 2 kg moving particle is given by $\underline{r}(t) = 4\sin(t)\underline{i} + \cos(2t)\underline{j}$ where the position is measured in metres and $t \geq 0$ is the time in seconds. The maximum momentum in kg-m/s of the particle is

- A. 8
- B. 4
- C. 2
- D. 1
- E. $2\sqrt{5}$