

Mathematics Questions by Topics

Motion and Force

Question 27

Source: K12SM2Q14

Question 27

A body moves in a straight line such that its velocity $v \text{ ms}^{-1}$ is given by $v(x) = e^{2x} - e^{-2x}$, where x metres is its displacement from the origin. The acceleration of the body in ms^{-2} is given by

- A. $4(e^{4x} - e^{-4x})$
- B. $2(e^{4x} - e^{-4x})$
- C. $e^{4x} - e^{-4x}$
- D. $2(e^{2x} + e^{-2x})$
- E. $-4x$