

Mathematics Questions by Topics

Motion and Force

Question 12

Source: K18SM2Q16

Question 12

A body is moving in a straight line. When its displacement is x metres from the origin at time t seconds, then $t = e^{kx}$, where k is a non-zero constant. The acceleration in ms^{-2} is given by

A. $-e^{-kx}$

B. $-\frac{e^{-kx}}{k^2}$

C. $-\frac{e^{-2kx}}{k}$

D. $-k$

E. e^{-2kx}