

16 A constant force pushes a block along a horizontal frictionless surface. The block moves from rest through a fixed distance.

What is the relationship between the final speed v of the block and its mass m ?

A $\sqrt{v} \propto \frac{1}{m}$

B $v \propto \sqrt{m}$

C $v \propto \frac{1}{\sqrt{m}}$

D $\sqrt{v} \propto m$