

- 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**  $\sqrt{v} \propto m$