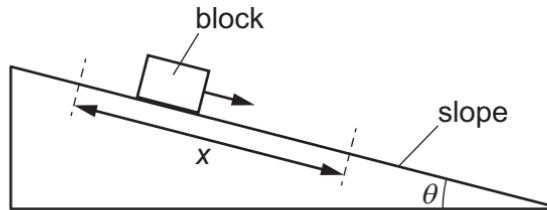


17 A block is released from rest and slides a distance  $x$  down a straight slope.

The slope is at an angle  $\theta$  to the horizontal.



The slope is frictionless and air resistance is negligible.

The acceleration of free fall is  $g$ .

Which expression gives the final speed of the block?

A  $\sqrt{\frac{gx \sin \theta}{2}}$

B  $\sqrt{2gx \sin \theta}$

C  $\sqrt{2gx}$

D  $2gx \sin \theta$