



# PHYSICS

## BOOKS - PRINCETON PHYSICS

### (ENGLISH)

### STRATEGY

#### Mcqs

1. A block of mass  $m$  slides with constant speed down a ramp whose incline angle is  $\theta$ . If

$F_1$  is the magnitude of the gravitational force acting parallel to the ramp and  $F_2$  is the magnitude of the normal force acting on the block, what is the value of  $F_1 / F_2$ ?

A.  $m \tan \theta$

B.  $m \cot \theta$

C. 1

D.  $\tan \theta$

**Answer: D**



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2. A ball is thrown straight upward and falls back to the ground 3 seconds later. At the moment the ball reaches its highest point

A. its potential energy is minimized

B. its acceleration is zero

C. the net force on the ball is zero

D. its velocity is changing

**Answer: D**



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3. The figure above shows the two unbalanced forces acting on a block. If the velocity of the block is to the left, then

A. The work done by  $F_1$  is positive

B. The work done by  $F_2$  is negative

C. The momentum of the block is decreasing

D. the net force is in the same direction as the velocity

**Answer: C**



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