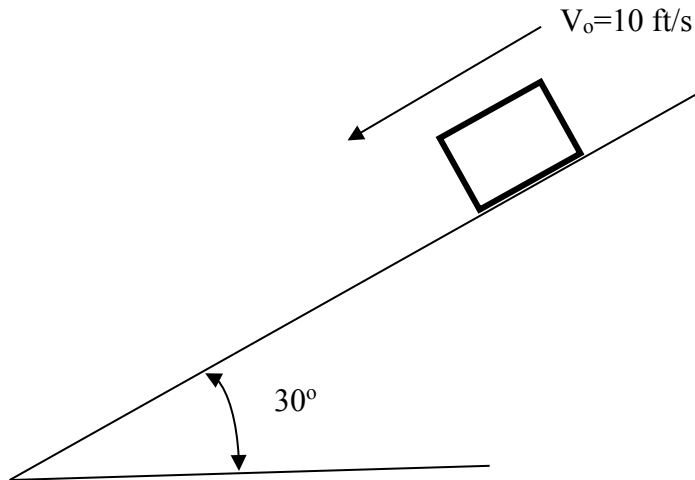


**TOPIC**

Engineering Mechanics (Statics and Dynamics) – Section VII – Question 17

**QUESTION**

A 161 lb block travels down a  $30^\circ$  inclined plane with initial velocity of 10 ft/s. If the coefficient of friction is 0.2, the total work done, in ft-lbs by all forces when the block moves through a distance of 5 ft most nearly is



- (A)  $-239.4$
- (B)  $80.50$
- (C)  $263.1$
- (D)  $402.5$

**HINT**

- Work is force times distance.
- Forces that are perpendicular to displacement do not work.
- Forces in the same direction as the displacement produce positive work and vice-versa.

**CONTRIBUTOR**

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