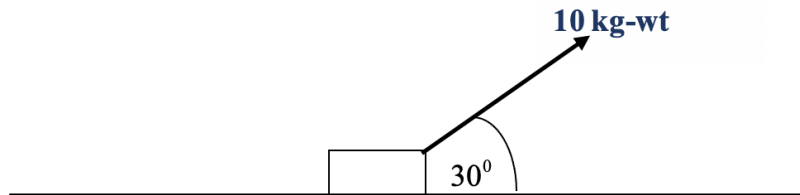


Mathematics Questions by Topics

Motion and Force

Question 42

Source: K8SM2Q13

Question 42

A box of mass 20 kg is at rest on a horizontal plane. A force of magnitude 10 kg-wt acting at an angle of 30° to the horizontal is applied to the block. For equilibrium to be maintained, the coefficient of friction between the box and the plane must be

- A. at least $\frac{\sqrt{3}}{3}$
- B. less than $\frac{\sqrt{3}}{3}$
- C. at least $\frac{\sqrt{3}}{4}$
- D. at least $\frac{\sqrt{3}}{4g}$
- E. less than $\frac{\sqrt{3}}{4g}$