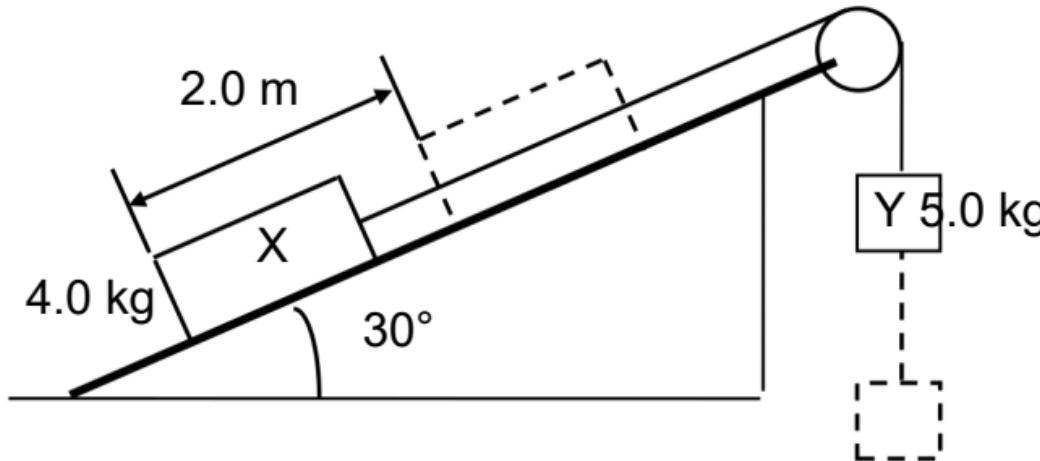


9

The diagram shows two bodies X and Y connected by a light cord passing over a light, free-running pulley. X starts from rest and moves on a slope inclined at  $30^\circ$  to the horizontal. X has a mass of 4.0 kg, and Y has a mass of 5.0 kg. Friction between X and the slope is 5.0 N.



Which of the following is the total kinetic energy of the system when X has travelled 2.0 m along the plane?

A 9.6 J

B 30 J

C 49 J

D 69 J