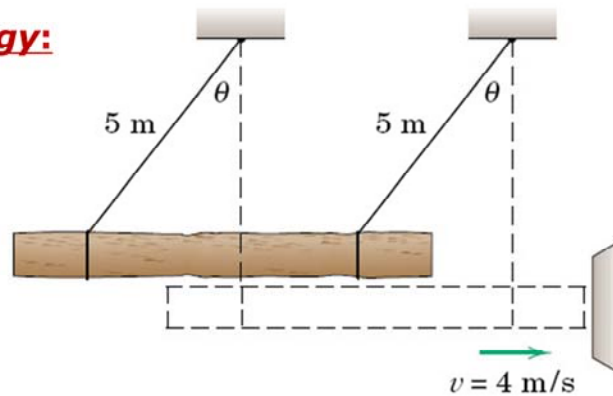


**Work-Energy:  
Exercise 1**



The log is suspended by two parallel 5-m cables and used as a battering ram.

Determine the **angle  $\theta$**  for the log to be released from rest in order to strike the object to be smashed with a **velocity of  $4 \text{ m/s}$** .

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6/118 |  $U_{1-2}' = \Delta T + \Delta V_g$   
 $0 = \frac{1}{2}m(4^2 - 0^2) - mg(5)(1 - \cos \theta)$   
 $\theta = 33.2^\circ$