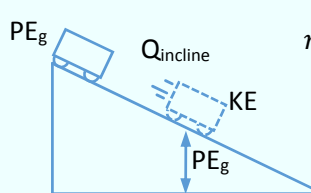


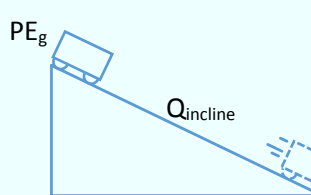
## Conservation of Energy on Inclines

$$PE_g = PE_g + Q_{incline} + KE$$

$$m \cdot g \cdot h_1 = m \cdot g \cdot h_2 + m \cdot g \cdot \cos \theta \cdot \mu \cdot d_{incline} + \frac{1}{2} m \cdot v^2$$


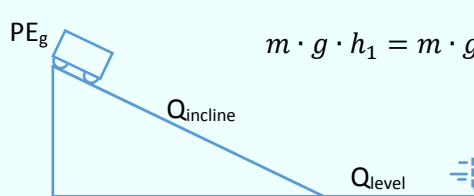
The diagram shows a block at the top of an incline. A vertical arrow labeled  $PE_g$  points down from the block. A dashed box labeled  $KE$  is positioned on the incline. A vertical arrow labeled  $Q_{incline}$  points down from the incline.

$$PE_g = Q_{incline} + KE$$

$$m \cdot g \cdot h_1 = m \cdot g \cdot \cos \theta \cdot \mu \cdot d_{incline} + \frac{1}{2} m \cdot v^2$$


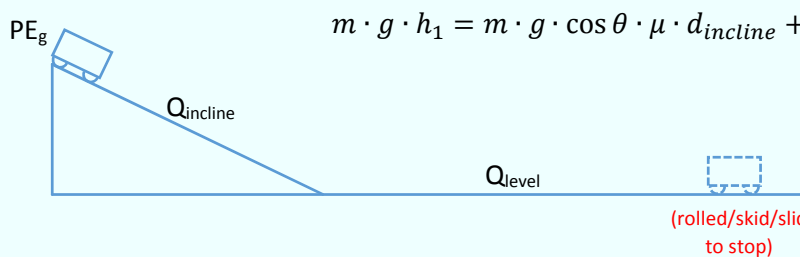
The diagram shows a block at the top of an incline. A dashed box labeled  $KE$  is positioned at the bottom of the incline. A vertical arrow labeled  $Q_{incline}$  points down from the incline.

$$PE_g = Q_{incline} + Q_{level} + KE$$

$$m \cdot g \cdot h_1 = m \cdot g \cdot \cos \theta \cdot \mu \cdot d_{incline} + m \cdot g \cdot \mu \cdot d_{level} + \frac{1}{2} m \cdot v^2$$


The diagram shows a block at the top of an incline. A dashed box labeled  $KE$  is positioned on a horizontal level surface. A vertical arrow labeled  $Q_{incline}$  points down from the incline, and another vertical arrow labeled  $Q_{level}$  points down from the level surface.

$$PE_g = Q_{incline} + Q_{level}$$

$$m \cdot g \cdot h_1 = m \cdot g \cdot \cos \theta \cdot \mu \cdot d_{incline} + m \cdot g \cdot \mu \cdot d_{level}$$


The diagram shows a block at the top of an incline. A dashed box is positioned on a horizontal level surface. A vertical arrow labeled  $Q_{incline}$  points down from the incline, and another vertical arrow labeled  $Q_{level}$  points down from the level surface. Below the dashed box, the text "(rolled/skid/slid to stop)" is written in red.