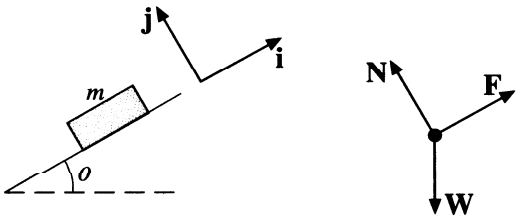
A particle of mass m is sliding down a rough plane inclined at an angle θ to the horizontal. The coefficient of sliding friction between the particle and the plane is μ', and axes are chosen as shown.



Select the option giving the **i**-component of the total force acting on the particle.

Options

A $mg(\mu' \cos\theta - \sin\theta)$ **B** $mg(\cos\theta - \mu' \sin\theta)$ **C** $mg(\mu' \sin\theta - \cos\theta)$

D $mg(\sin\theta - \mu' \cos\theta)$ **E** $mg(\mu' \cos\theta + \sin\theta)$ **F** $mg(\cos\theta + \mu' \sin\theta)$

G $mg(\mu' \sin\theta + \cos\theta)$ **H** 0