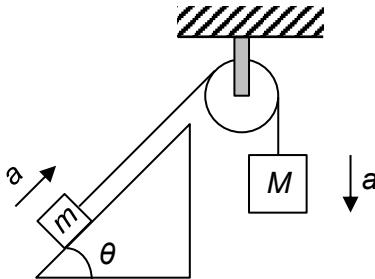


- 4 Two blocks of masses  $M$  and  $m$  are joined by a light inextensible string through a frictionless pulley as shown. Mass  $m$  lies on a smooth slope of angle  $\theta$ .



The acceleration of free fall is  $g$ .

What is the acceleration  $a$  of the two blocks?

A 
$$\frac{(M + m \cos \theta)}{(M + m)} g$$

B 
$$\frac{(M + m \sin \theta)}{(M + m)} g$$

C 
$$\frac{(M - m \cos \theta)}{(M + m)} g$$

D 
$$\frac{(M - m \sin \theta)}{(M + m)} g$$

