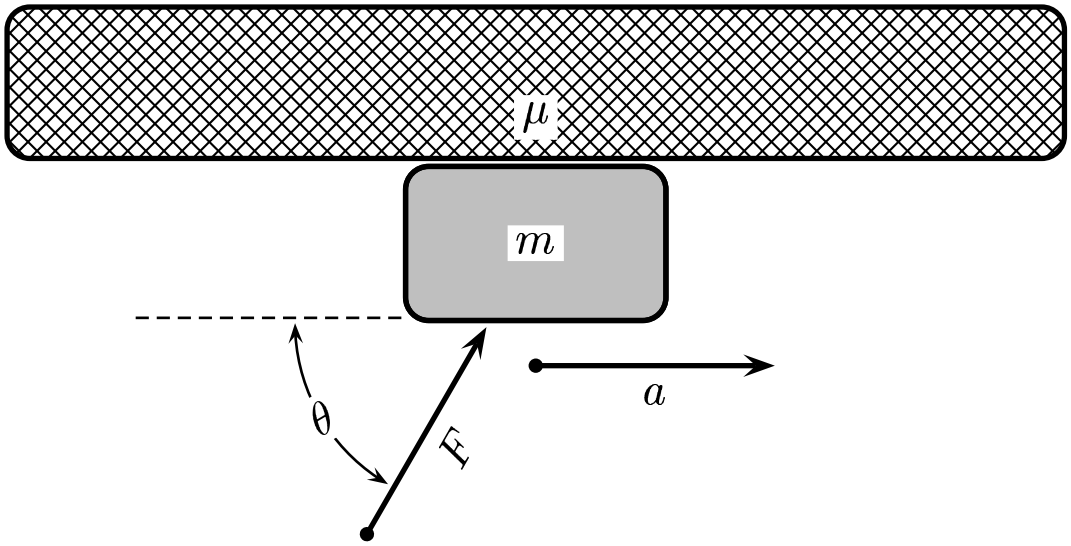
The force F exerted on the block pushes the block against the ceiling and at the same time accelerates the block to the right.



Find the kinetic fiction between the block and the ceiling.

A) $f_k = \mu\, m\, g$

B) $f_k = \mu\, F \sin\theta$

C) $f_k = \mu\, (F \sin\theta - m\, g)$

D) $f_k = \mu\, (F \sin\theta + m\, g)$

The net normal force which pushes against the ceiling is $F \sin\theta - m\,g$. So the kinetic friction is $f_k = \mu\,(F \sin\theta - m\,g)$.

Answer **C**.

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