Consider a conical pendulum with mass \( m \) and the \( \theta \), with the centripetal acceleration \( a_c \).

Choose the correct horizontal equation from the free-body diagram for the mass.

A) \( T \sin \theta = m a_c \).
B) \( T \cos \theta = m a_c \).
C) \( T \sin \theta = m g \).
D) \( T \cos \theta = m g \).
Explaination: Use the free-body diagram below.

\[ T \sin \theta = m \frac{v^2}{r} = m a_c. \]

Answer A.

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