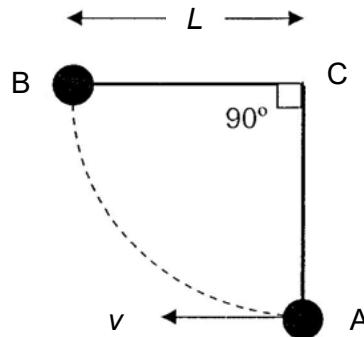


- 9** A simple pendulum consists of a bob of mass  $m$  at the end of a light inextensible thread of length  $L$ . The other end of the thread is fixed at C. The bob swings through point A with velocity  $v$  and just reaches B, where the string is just taut.



What is the tension in the thread as the bob passes point A?

- A**  $mg$       **B**  $2mg$       **C**  $3mg$       **D**  $4mg$