

- 13 An oscillating pendulum bob of mass m and weight W is supported by a string of length r .

What is the relationship between W and the tension T in the string at the instant when the string is vertical and the bob is moving with speed v ?

A $T = W$

B $T - W = \frac{v^2}{r}$

C $T - W = m \frac{v^2}{r}$

D $W - T = m \frac{v^2}{r}$

- 14 A satellite is orbiting the Earth