**8**    A pendulum bob of mass 1.27 kg is supported by a string so that the radius of its path is 0.600 m. It is moving with velocity 0.575 m s⁻¹ horizontally at the centre of its motion when the string is vertical.

What is the tension in the string at this instant?

**A**    11.8 N

**B**    12.5 N

**C**    13.2 N

**D**    13.7 N