8 A ball of mass 0.10 kg is attached to a string and swung in a vertical circle of radius 0.50 m. The speed of the ball at the top of the circle is 6.0 m s^{-1}.

What is the tension in the string at this instant?

A 0.98 N **B** 6.2 N **C** 7.2 N **D** 8.2 N