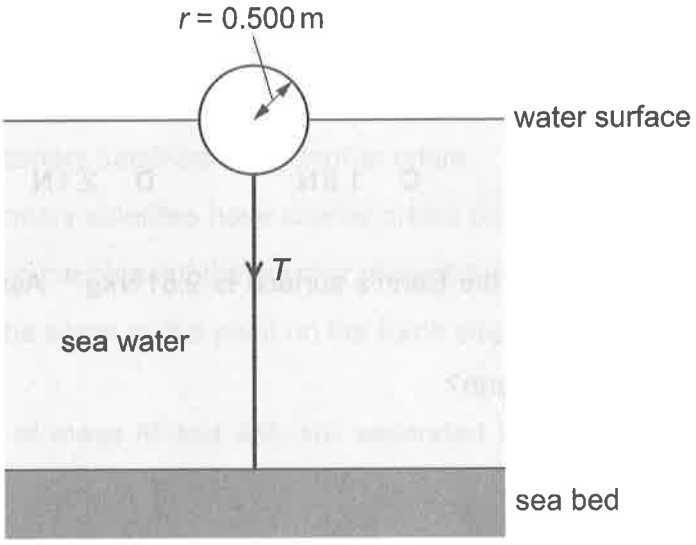
4 A spherical buoy is attached to the sea bed by a rope, as shown. The buoy is in equilibrium.



The buoy has a radius r of 0.500 m and a mass of 200 kg.

The density of the sea water in which the buoy floats is 1030 kg m^{-3}.

Exactly half of the volume of the buoy is below the surface of the water.

What is the tension T in the rope?

A 606 N **B** 683 N **C** 3330 N **D** 4610 N