A particle P of mass m is attached to one end of a light inextensible string of length a. The other end of the string is attached to a fixed point O. The particle P is held at the point A with the string taut. It is given that OA makes an angle θ with the downward vertical through O, where $\tan\theta = \frac{3}{4}$. The particle P is projected perpendicular to OA in an upwards direction with speed $\sqrt{5ag}$, and it starts to move along a circular path in a vertical plane. When P is at the point B, where angle AOB is a right angle, the tension in the string is T.

Find T in terms of m and g. [5]