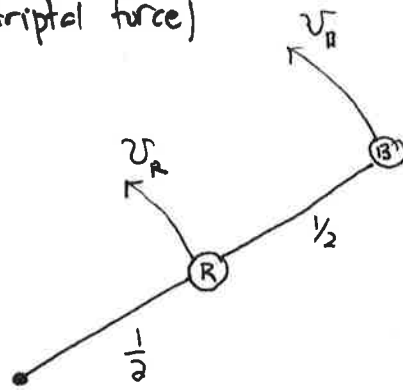
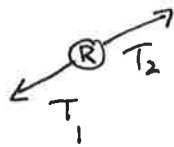


ASG v2

Ex 19.2 (centripetal force)



a)



(Free body diagrams)

b)

The accelerative quantity of centripetal force, a_c , is the rate of change of velocity caused by the centripetal force. Since the black bead is traveling with a higher velocity, its velocity must be changing at a faster rate in order to swing around in the same time as the red bead. So

$a_{c, \text{black}} > a_{c, \text{red}}$. The motive quantity, ma_c , is also larger, since the masses are identical.

c)

The absolute quantity of centripetal force is an impressed force.