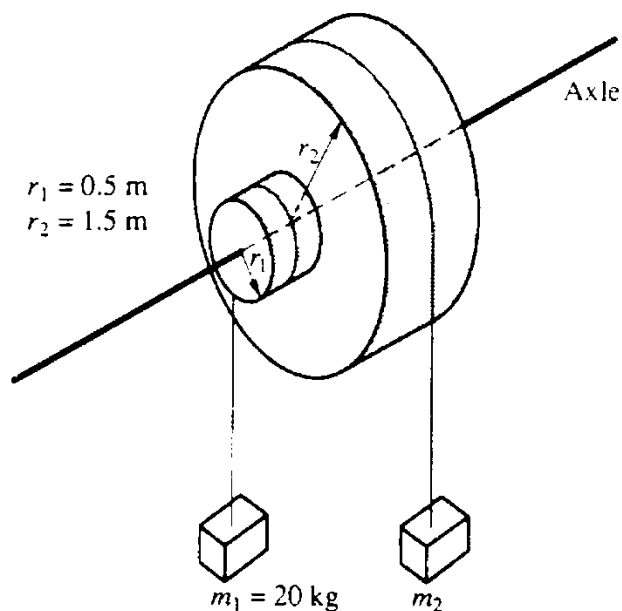


Name _____ Date _____ Period _____



2. Two masses, m_1 and m_2 , are connected by light cables to the perimeters of two cylinders of radii r_1 and r_2 , respectively, as shown in the diagram above with $r_1 = 0.5$ meter, $r_2 = 1.5$ meters, and $m_1 = 20$ kilograms.

Determine m_2 such that the system will remain in equilibrium.