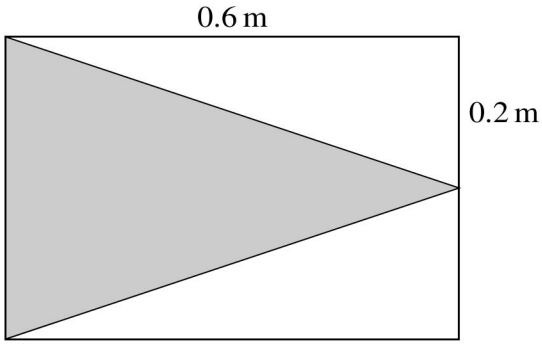

A uniform solid cone has height 0.6 m and base radius 0.2 m. A uniform hollow cylinder, open at both ends, has the same dimensions. An object is made by putting the cone inside the cylinder so that the base of the cone coincides with one end of the cylinder (see diagram, which shows a cross-section). The total weight of the object is 60 N and its centre of mass is 0.25 m from the base of the cone. Calculate the weight of the cone. [3]