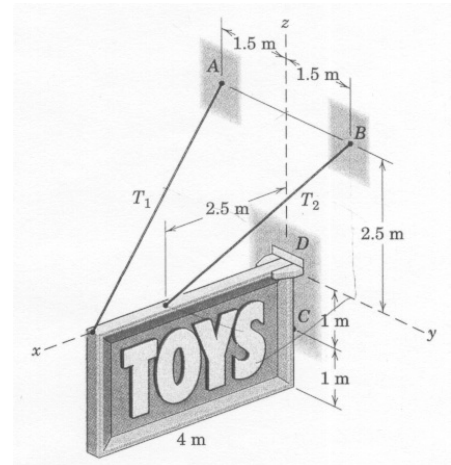


Problem 3/94 page 161

The sign has a mass of 100 kg. The support at C may be treated as a ball-and socket joint.

At D the support is provided by a slider, allowing movement in the z-direction only.

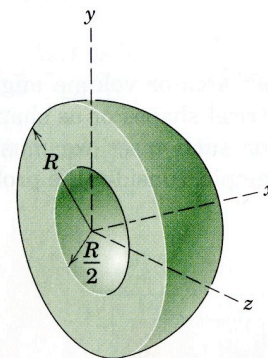
Calculate the tension T_1 and T_2 in the supporting wires, and the reactions at C and D.



Problem 5/42 page 255

Determine the x-coordinate of the mass center of the homogeneous hemisphere with the smaller hemispherical portion removed.

Ans. $\bar{x} = \frac{45}{112}R$



Problem 7/63 page 439

7/63 A uniform rectangular block of height h and mass m is centered in a horizontal position on the fixed circular surface of radius r . Determine the limiting value of h for stability.

Ans. $h < 2r$

