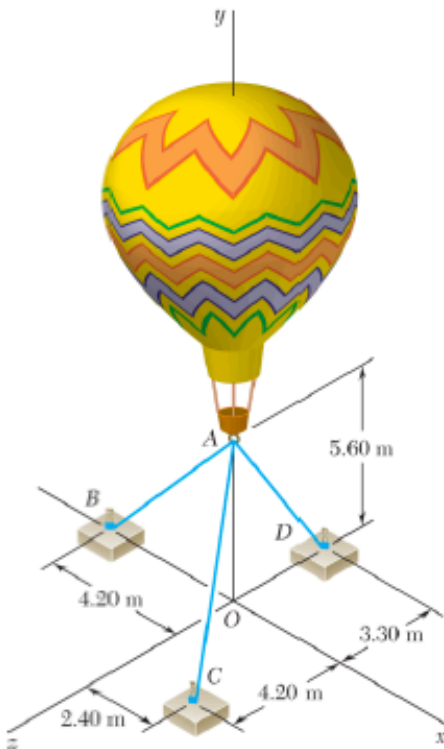


All problems are from Beer and Johnston's book

PROBLEM 2.101

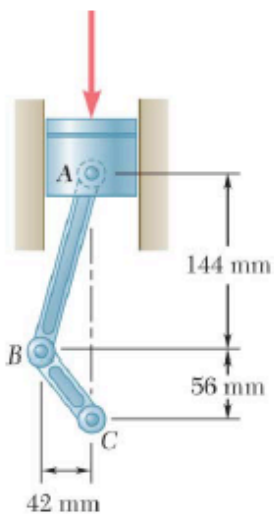
Three cables are used to tether a balloon as shown. Determine the vertical force P exerted by the balloon at A knowing that the tension in cable AD is 481 N.



Ans: 926 N

PROBLEM 3.13

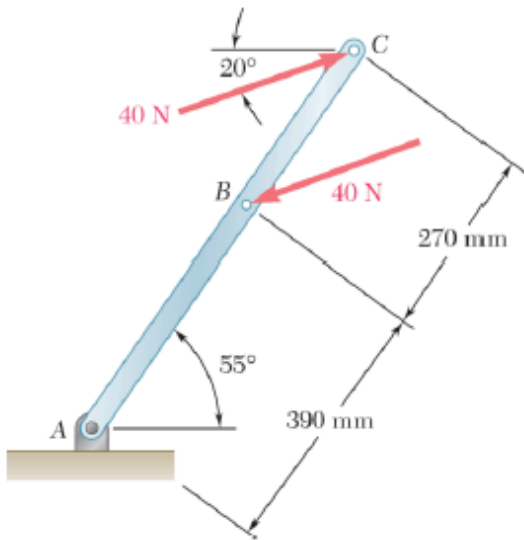
It is known that the connecting rod AB exerts on the crank BC a 2.5-kN force directed down and to the left along the centerline of AB . Determine the moment of the force about C .



Ans: 140 Nm CCW

PROBLEM 3.71

Two parallel 40-N forces are applied to a lever as shown. Determine the moment of the couple formed by the two forces (a) by resolving each force into horizontal and vertical components and adding the moments of the two resulting couples, (b) by using the perpendicular distance between the two forces, (c) by summing the moments of the two forces about Point *A*.



Ans: 6.19 Nm CW