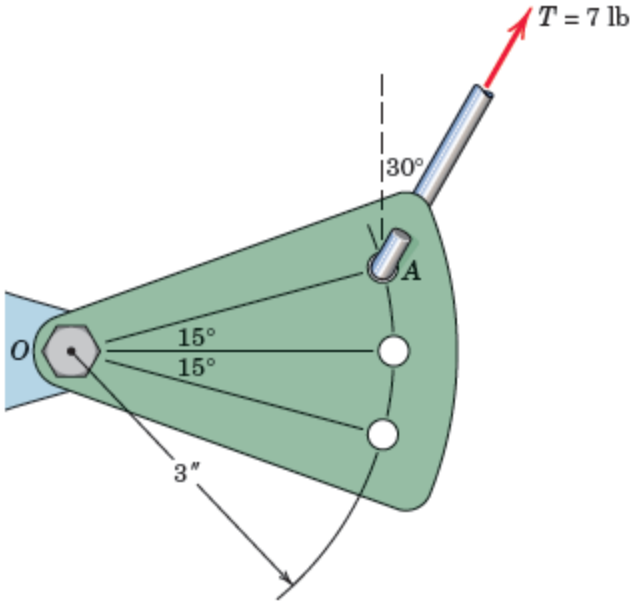
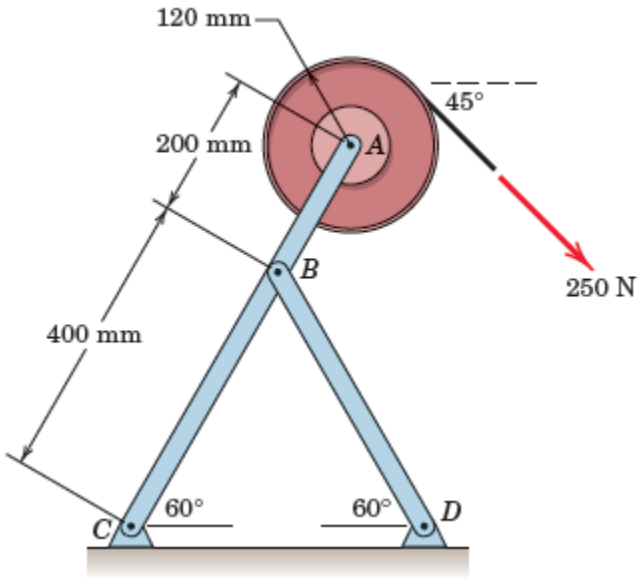
Chapter 2, Supplemental Problem 2/26

The 7.0-lb force is applied by the control rod on the sector as shown. Determine the equivalent force-couple system at *O*. The couple is positive if counterclockwise, negative if clockwise.



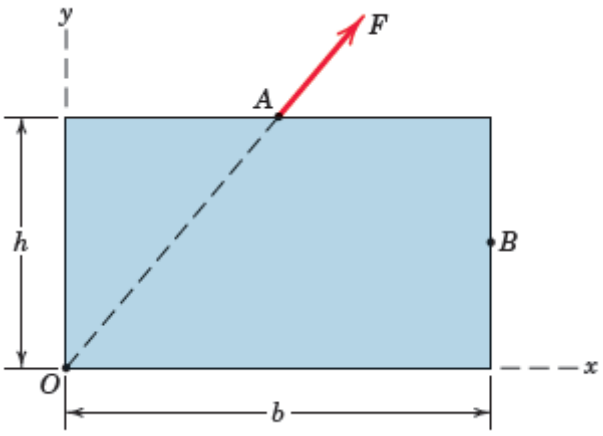
Chapter 2, Supplemental Problem 2/30

The 250-N tension is applied to a cord which is securely wrapped around the periphery of the disk. Determine the equivalent force-couple system at point *C*. Begin by finding the equivalent force-couple system at *A*.



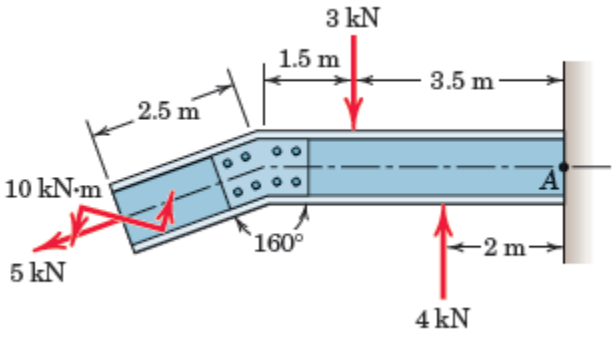
Chapter 2, Supplemental Problem 2/31

Points *A* and *B* are the midpoints of the sides of the rectangle. Replace the force *F* acting at *A* by a force-couple system at *B*.



Chapter 2, Supplemental Problem 2/78

Represent the resultant of the three forces and couple by a force-couple system located at point *A*.



Chapter 2, Supplemental Problem 2/40

The pedal-chainwheel unit of a bicycle is shown in the figure. The left foot of the rider exerts the 40-lb force, while the use of toe clips allows the right foot to exert the nearly upward 20-lb force. Determine the equivalent force-couple system at point *O*. Also determine the equation of the line of action of the system resultant treated as a single force **R**. Treat the problem as two-dimensional.