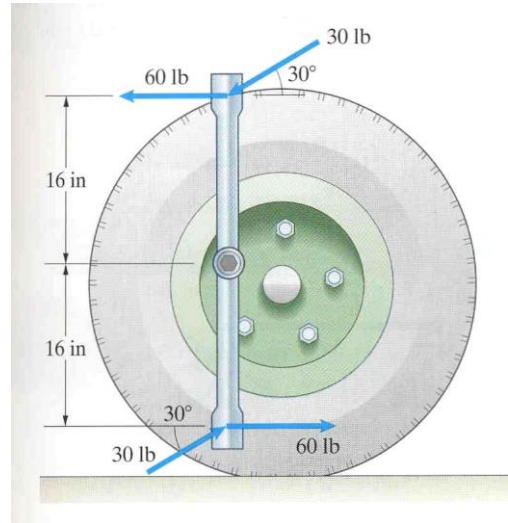


## Assignment 2

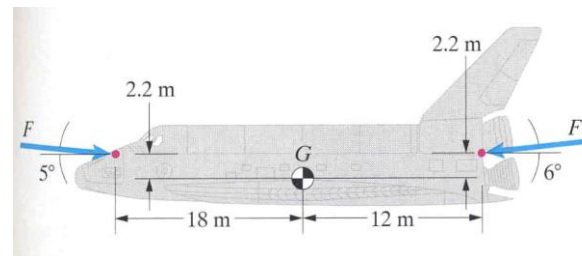
4.12

Two students attempt to loosen a lug nut with a lug wrench. One of the students exerts the two 60-lb forces; the other, having to reach around his friend can only exert the two 30-lb forces. What torque (moment) do they exert on the nut.



4.26

The space shuttle's attitude thrusters exert two forces of magnitude  $F = 7.70$  kN. What moment do the thrusters exert about the center of gravity.



4.111

Replace the force system action on the beam by an equivalent force couple moment at point B.

