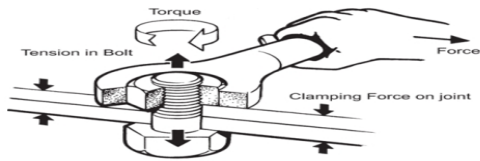Name:………………………………………………

Moment (Torque)

Torque, also called moment or moment of force

"The tendency of a force to rotate an object about an axis, fulcrum or pivot."
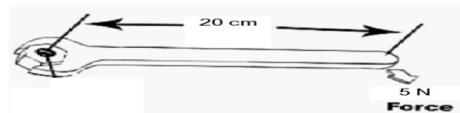
$$\tau = F.d$$

τ is the torque & d is displacement from fulcrum to force acting point. &F is the applied force.
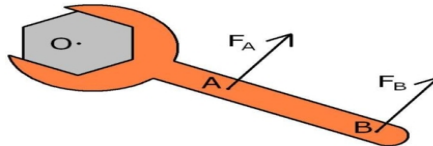

Problem

1. If the force of 10 N is now applied at a distance of 0,15 m from the centre of the bolt برغي, then calculate the torque.

2. In this figure:
   Calculate the torque.

3. How long is a moment arm ذراع العزم if a force of 10 N applied normal to one end produces a torque of 50 N.m about the other end?

4. Which force F_A or F_B produces higher torque? Why?

5. Solve example 1 page 27 (advanced physics for you).