

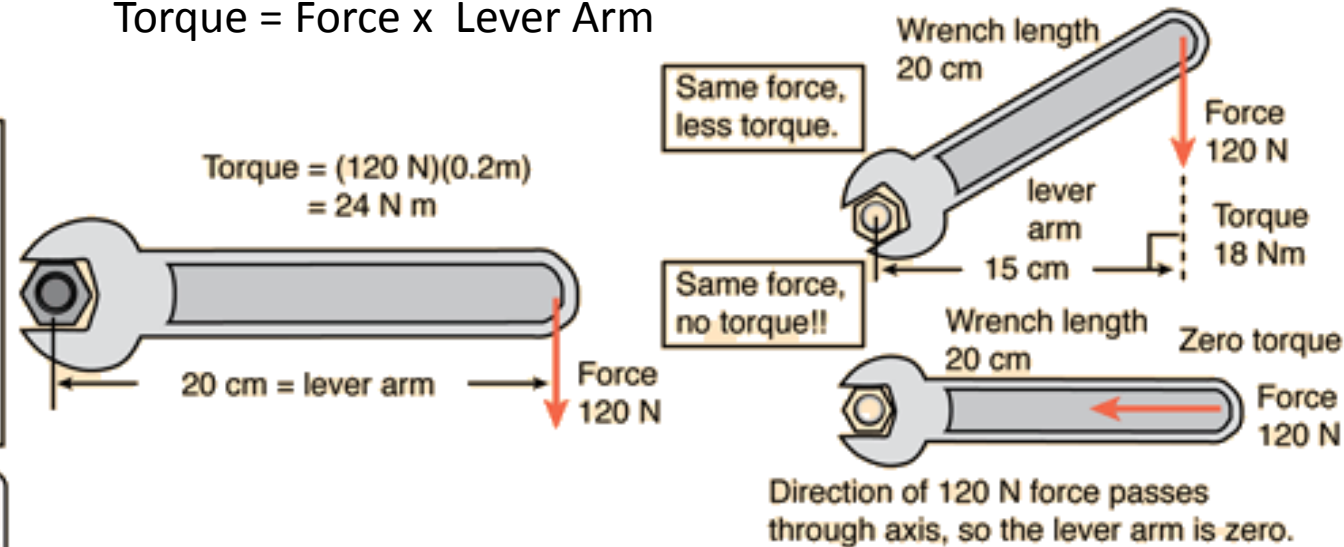
# Statics

Condition of mechanical equilibrium:

- Sum of all **forces** acting on an object is zero.
- Sum of all **torques** acting on an object is zero.

What is torque?

Torque = Force x Lever Arm



Three examples of torque exerted on a wrench of length 20 cm.

# Homework

**Problem 1** Estimate, how much torque you apply to a faucet to shut down the water in your bathroom.

**Problem 2** In the picture below, the horse weights 150 kg. Use the picture to estimate the minimum mass of the load on the cart. Show all the forces, and do appropriate calculation.

