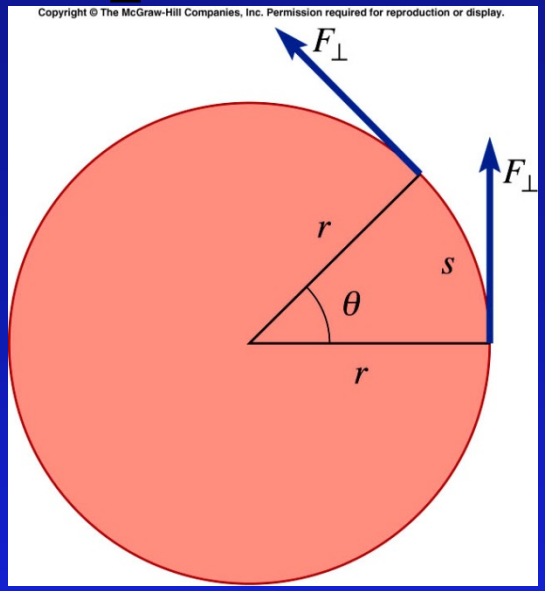
Work Done by Torque



- Recall $W = F\ d \cos\theta$

- For a wheel
  - Work: $W = F_{tangential}\ d$

    $= F_{tangential}\ 2\pi r\ [\theta / (2\pi)]$ (θ in radians)

    $= F_{tangential}\ r\ \theta$

    $= \tau\ \theta$
  - Power: $P = W/t = \tau\ \theta/t$

    $= \tau\ \omega$