

# Mechanical Work

**Work = Force x Distance**

$$W = Fd$$

Units of work are joules, same as for energy. 1 joule is the work done by force 1 newton over distance traveled 1 meter.

$$1\text{J} = 1\text{N} \cdot 1\text{m}$$

# Homework

## Problem.

A cyclist is moving at a constant speed of 10 m/s on a flat road. There is an air resistance force acting on him which is  $F=100$  Newtons, directed backwards (called air drag).

What is the work done by the bicyclist over 1 minute (assuming there are no other losses except of the air drag)?

