

Aids:

- Circumference of a circle: $U = 2\pi r = \pi D$
- Area of a circle: $A = \pi r^2 = \pi \frac{D^2}{4}$
- Circle: degrees: 360° and arc: 2π
- Average speed: Distance divided by time
- Rotational frequency: Number of revolutions per time unit (e.g. 10 revolutions per second or $n = 10 \text{ s}^{-1}$)
- Pressure: Force divided by area
- Torque: Force multiplied by lever arm (only applies to right angles)

- A lever is balanced when the clockwise torque and the counter-clockwise torque are equal.
- Proportionality:
 - The quantities x and y (e.g. weight and volume) of a body are **proportional** to one another ($x \sim y$) if their quotient is a constant.
 - The quantities u and w (e.g. volume and pressure of an ideal gas at a constant temperature) are **inversely proportional** ($u \sim \frac{1}{w}$) to one another when their product is a constant.