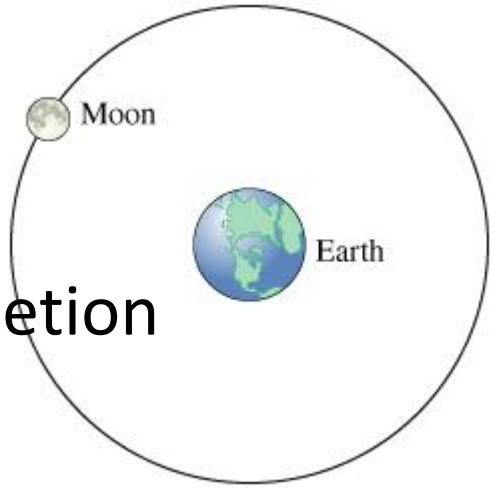
Time Terms

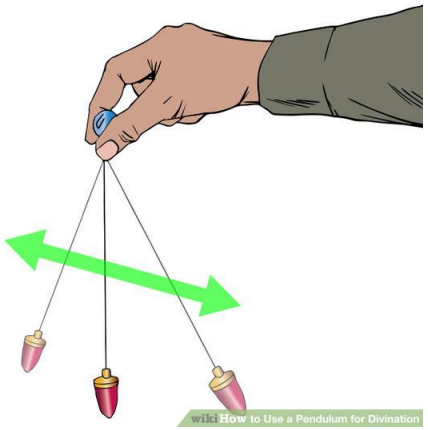


A Cycle

regular repeating motion (Clock Pendulum) – one completion is a *cycle*

Period – the amount of time required for one cycle.

Symbol **T** = $\frac{Time}{cycles}$ Units - Seconds



Frequency – the number of cycles per second

Symbol $f = \frac{Cycles}{time\ (sec)}$ *Units - Hertz Hz*

Period $T = \frac{Time}{cycles}$ Seconds

Frequency $f = \frac{Cycles}{time\ (sec)}$ Hertz

The terms period and frequency are related by the following equation:

Period (seconds) → $T = \frac{1}{f}$ ← Frequency (hertz)

Frequency (hertz) → $f = \frac{1}{T}$ ← Period (seconds)

Example:

The wheels on the bus rotate 240 times in 60 sec.

a) What is the frequency of rotation of the wheels?

b) What is the Period of each rotation?

If the frequency of a Bell is 1.5 rings per second.

Find the bell’s frequency and period.