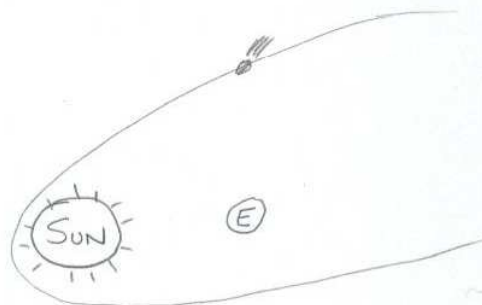
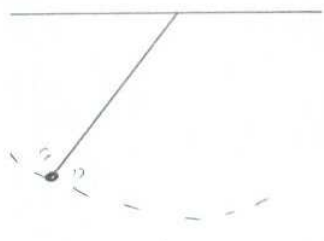


Any motion that repeats itself in regular time intervals is said to be in Periodic or "Harmonic" Motion.

ex.



A Body is said to be Simple Harmonic Motion (SHM) if its position ( $x$  or  $\theta$ ) from equilibrium as a function of time can be written as:

$$x(t) = X_m \cos(\omega t + \phi)$$

OR  $\sin(\omega t + \phi)$

where:  $\omega, \phi$  are constants

$X_m \equiv$  the Amplitude  $\geq 0$  !