

International System of Units (MKS)

Distance	: in meters	: m	} Fundamental Units
Mass	: in kilograms	: kg	
Time	: in seconds	: s	
Charge	: in coulombs	: q	

Derived units:

Acceleration : m/s^2

Force in Newtons = mass * acceleration = $kg (m/s^2)$

Energy in Newton-meters or Joules = force * distance = $kg m^2/s^2$

Power in Watts = Joules/second = $kg m^2/s^3$

Current in Amperes = coulombs/second = q/s

Voltage in Volts = Joules/coulomb = $kg m^2/q s^2$

Resistance in Ohms = Voltage/Current = $kg m^2/q^2 s$

Inductance in Henries = volt seconds/amp. = $kg m^2/q^2$

Capacitance in Farads = coulomb/volt = $q^2 s^2/kg m^2$

Note: $\sqrt{\frac{\text{Inductance}}{\text{Capacitance}}} = \sqrt{\frac{\frac{kg m^2}{q^2}}{\frac{q^2 s^2}{kg m^2}}} = \frac{kg m^2}{q^2 s^2} = \text{resistance}$

Note: $\frac{1}{\sqrt{\text{Inductance} * \text{Capacitance}}} = \frac{1}{\sqrt{\frac{kg m^2}{q^2} * \frac{q^2 s^2}{kg m^2}}} = \frac{1}{s}$

reciprocal of
time period
is frequency