Practical formulas:

$R=\frac{ρL}{A}$ (resistance, resistivity (electricity))

**F = Eq** (field and force (electricity))

$F=CρAv^{2}$ (resistance force (fluid mechanics))

$c=\frac{m\_{1}x\_{1}+m\_{2}x\_{2}}{m\_{1}+m\_{2}}$(center of mass (solid mechanics))

**F = ma** (Newton Second Law (solid mechanics))

**σ = Eε** (Hooks Law (deformed mechanics))

$T=2π\sqrt{\frac{m}{k}}$ (spring harmonic oscillator period (solid mechanics))

$T=2π\sqrt{\frac{L}{g}}$ (pendulum harmonic oscillator period (solid mechanics))

$T=2π\sqrt{\frac{J}{c}}$ (rotational harmonic oscillator period (solid mechanics))

$T=2π\sqrt{LC}$ (LC circuit harmonic oscillator period (electricity))