Equations

$$D.T. = \frac{70}{\%\,growth}$$

$$\bar{v} = \frac{\Delta x}{\Delta t} = \frac{x_2 - x_1}{t_2 - t_1},\ \bar{a} = \frac{\Delta v}{\Delta t} = \frac{v_2 - v_1}{t_2 - t_1}$$

$$a = \frac{\mathbf{F}_{net}}{m}$$

$$\mathbf{F}_{net} = m\mathbf{a}$$

$$W = Fd$$

$$\mathrm{KE} = \tfrac{1}{2}mv^2$$

$$\mathrm{PE}_{\mathrm{grav}} = mgh$$

$$E_1 = E_2$$

$$W + Q = \Delta(\mathrm{KE} + \mathrm{PE} + \mathrm{TE}) = \Delta E$$

$$\mathrm{KE}_1 + \mathrm{PE}_1 = \mathrm{KE}_2 + \mathrm{PE}_2$$

$$P = \frac{W}{t} = \frac{\Delta E}{t}$$

$$Eff = \frac{\text{Useful Energy or } W}{Energy\ \text{In}}$$

$$\Delta T = \frac{Q}{mc}$$

$$\mathrm{T\,(K)} = \mathrm{T}(^0\mathrm{C}) + 273$$

$$\mathrm{Q} = mL$$

$$\frac{Q_c}{t} = \frac{kA(T_2 - T_1)}{\delta}$$

$$\mathrm{Q} = mc\Delta T$$

$$g = 9.80\ \mathrm{m/s^2} = 32\mathrm{ft/s^2}$$

$$1\ \mathrm{cm} = 10^{-2}\ \mathrm{m}$$

Terms to study

Absolute Zero	Overall efficiency	Heat Capacity
Exponential Growth	Conservation of Energy	Specific Heat
Doubling Time	Energy Conversion	Latent Heat
Force	Heat	
Work	BTU	
Energy	Joules	
Power	Watt	
Kinetic Energy	Efficiency	Hubbert Curve
Potential Energy	Conduction	Peak Oil
Thermal Energy	Convection	Estimated Reserves
Total Energy	Radiation	Global Warming
Nuclear Energy	Heat Transfer	
Fossil Fuel	Emissivity	
Electrical Energy	Laws of Thermodynamics	

Know the Units of the following

Force: Newtons, pounds	Power: Watts, hp, ft-lb/sec	
Energy: Joules, BTU, ft-lb	Distance: meter, foot	
Mass: Kilogram, slug	Heat: calories (other energy units)	

Know how to use the conversion table 3.4 located on the back page of the book.