RMS CURRENT AND POTENTIAL DIFFERENCE	$I_{rms} = \dfrac{I_{max}}{\sqrt{2}} = 0.707\ I_{max}$
	$\Delta V_{rms} = \dfrac{\Delta V_{max}}{\sqrt{2}} = 0.707\ \Delta V$

TRANSFORMERS *N is assumed to be a whole number.*	$\Delta V_2 = \dfrac{N_2}{N_1} \Delta V_1$

Chapter 21   Atomic Physics

ENERGY OF A LIGHT QUANTUM	$E = hf$

MAXIMUM KINETIC ENERGY OF A PHOTOELECTRON	$KE_{max} = hf - hf_t$

WAVELENGTH AND FREQUENCY OF MATTER WAVES *Planck's constant (h) equals 6.63×10^{-34} J·s.*	$\lambda = \dfrac{h}{p} = \dfrac{h}{mv}$ $f = \dfrac{E}{h}$

Chapter 22   Subatomic Physics

RELATIONSHIP BETWEEN REST ENERGY AND MASS	$E_R = mc^2$

BINDING ENERGY OF A NUCLEUS	$E_{bind} = \Delta mc^2$

MASS DEFECT	$\Delta m = Z(\text{atomic mass of H}) + Nm_n - \text{atomic mass}$

ACTIVITY (DECAY RATE)	$\text{activity} = -\dfrac{\Delta N}{\Delta t} = \lambda N$

HALF-LIFE	$T_{1/2} = \dfrac{0.693}{\lambda}$