Chapter 25 – 28: UNITS

	MKS	CGS (esu electrical)
Frequency = f = $\frac{1}{T}$	Hz $\left(=\frac{1}{\text{sec}}\right)$	Hz
Wave velocity	$\frac{\text{m}}{\text{sec}}$	$\frac{\text{cm}}{\text{sec}}$
Wavelength = λ	m	cm
Wave number = k = $\frac{2\pi}{\lambda}$	$\frac{1}{\text{m}}$	$\frac{1}{\text{cm}}$
Electric Field	$\frac{\text{N}}{\text{C}}$ $\left(=\frac{\text{V}}{\text{m}}\right)$	$\frac{\text{dyne}}{\text{statcoulomb}}$
Magnetic field (= flux density)	T $\left(=\text{Tesla}=\frac{\text{Wb}}{\text{m}^2}\right)$	No units defined in the esu system
Phase Angle = δ	rad	rad
Intensity = $\frac{\text{Energy}}{\text{Area}\cdot\text{time}}$ **(Average intensity = Irradiance)**	$\frac{\text{J}}{\text{m}^2\cdot\text{s}}$ $\left(=\frac{\text{W}}{\text{m}^2}\right)$	$\frac{\text{erg}}{\text{s}\cdot\text{cm}^2}$
Angle of incidence, reflection, and refraction	Degree (°)	Degree (°)
Radius of curvature, focal length, object distance, image distance, object height, image height	m	cm
Magnification	None	None
Index of refraction	None	None
***f*-number**	None	None
Refractive Power of lens = $\mathcal{D}$	D = Diopter = $\frac{1}{\text{m}}$	Not used in CGS