Constants and astronomical quantities:

Speed of light	$c = 3 \times 10^{10}$ cm s^{-1}
Planck's constant	$h = 6.626 \times 10^{-27}$ erg s
Gravitational constant	$G = 6.67 \times 10^{-11}$ N m^{2}kg^{-2}
Stefan-Boltzmann's constant	$\sigma = 5.67 \times 10^{-8}$W m^{-2} K^{-4}
Boltzmann's constant	$k = 1.38 \times 10^{-16}$ erg K^{-1}
Mass of the Sun	1 M$_\odot$ = 1.99×10^{30} kg
Surface temperature of the Sun	$T_\odot = 5800$ K
Mass of a hydrogen atom	1 M$_H$ = 1.67×10^{-27} kg
Astronomical unit	1 AU = 1.496×10^{11} m
Parsec	1 pc = 3.26 ly = 3.086×10^{16} m = 206,265 AU
1 Jy	10^{-23} erg s^{-1} cm^{-2} Hz^{-1}
Conversion Kelvin (K) to Celsius (C)	T[K]=T[C]+273
Conversion Celsius (C) to Fahrenheit (F)	T[F]=$\frac{9}{5}$T[C]+32
1 radian	206,265 arcseconds

Useful equations:

$\lambda\nu = c$ and $E = h\nu$ for photons

$\lambda_{max} = \frac{0.29cmK}{T}$ Wien's Law and $F = \sigma T^4$ Stefan - Boltzmann Law

$B_\nu = \frac{2h\nu^3}{c^2}\frac{1}{e^{h\nu/kT}-1}$ Planck Function

$T_b = \frac{\lambda^2 S_\nu}{2k\Omega}$ Brightness Temperature

$K.E. = 3/2kT$ (per particle) and $V = \sqrt{(3kT/m)}$ (average velocity of particle)

$\theta = 1.02\lambda/D$ (in radians)

$V = \frac{\lambda_{\rm obs}-\lambda_0}{\lambda_0}c$ doppler velocity

$S = \frac{W}{4\pi d^2\Delta\nu}$ Flux and power and $W = kT\Delta\nu$

$A_e = G\lambda^2/4\pi$ where G=1.5 for a Hertz dipole

$A_e = \lambda^2/\Omega_a$ for all antennas

$\Delta S = \frac{SEFD}{\sqrt{\Delta\nu\tau}}$ where SEFD = Tsys/GAIN

$GAIN = \frac{\eta_A A}{2k}$ antenna gain

$d = D/\alpha$ distance equation for small angles and a known Diameter