

MATERIAL COVERED: *Scientific notation; astronomical calculations; units; the night sky; matter; light; telescopes*

Mathematical tools

Scientific notation Calculations such have been done in class and on the homework sheets

The day & night sky

constellation	asterism	Earth's rotation	Earth's orbit
the orbits of the planets	the Moon's orbit	day/night cycle	north celestial pole
Polaris (the North Star)	seasons	the zodiac	
spring (vernal) equinox	fall (autumnal) equinox	summer/winter solstice	lunar phases
solar eclipse	lunar eclipse		

Matter, light & energy, telescopes

electron	proton	neutron	quark
atom	molecule	nucleus	mass
gravity	"warped spacetime"	electromagnetic force	
the strong/weak nuclear forces		energy	light as energy
mass as energy	conservation of energy	$E = mc^2$	temperature
light	photon	photon energy	number of photons
light wave	wavelength	frequency	$E = h \times f$
electromagnetic spectrum	emission spectrum	absorption spectrum	thermal radiation
reflecting telescope	refracting telescope	Mauna Kea Observatory	Palomar Observatory
the Keck telescope	the Hale telescope	the VLA	Arecibo
the Hubble Space Telescope			