

SOME PHYSICAL CONSTANTS

<u>QUANTITY</u>	<u>SYMBOL</u>	<u>VALUE</u>
speed of light in a vacuum	c	$3.00 \times 10^8 \text{ m/s}$
Coulomb's constant	$\frac{1}{4\pi\epsilon_0}$	$9 \times 10^9 \text{ nt}\cdot\text{m}^2/\text{C}^2$
permittivity of free space	ϵ_0	$8.85 \times 10^{-12} \text{ F/m}$
permeability of vacuum	μ_0	$4\pi \times 10^{-7} \text{ H/m}$
elementary charge unit	e	$1.6 \times 10^{-19} \text{ C}$
mass of electron	m_e	$9.1 \times 10^{-31} \text{ kg}$
mass of proton	m_p	$1.673 \times 10^{-27} \text{ kg}$
mass of neutron	m_n	$1.675 \times 10^{-27} \text{ kg}$
Universal Gravitational Constant	G	$6.67 \times 10^{-11} \text{ m}^3/\text{kg}\cdot\text{s}^2$
Planck's constant	h	$6.63 \times 10^{-34} \text{ J}\cdot\text{s}$

Student's Name: _____

Advisor: _____

