

Constants to Memorize:

The Universal Gravitational Constant

$$G = 6.67 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$$

Coulomb's law Constant:

$$k = 9 \times 10^9 \text{ Nm}^2/\text{C}^2$$

The Speed of Electromagnetic Waves (speed of light)

$$c = 3.00 \times 10^8 \text{ m/s}$$

The Elementary Charge (magnitude of charge in one proton or electron)

$$e = 1.60 \times 10^{-19} \text{ C}$$

Acceleration due to gravity at Earth's surface:

$$g = 9.8 \text{ m/s}^2$$

On the AP physics test, you can approximate:

$$g = 10 \text{ m/s}^2$$

$$1 \text{ Angstrom} = 1 \text{ \AA} = 10^{-10} \text{ meters}$$