

## Gravitation Data

Mass of Earth –  $5.9742 \times 10^{24}$  kg (kilograms)

Mass of Moon –  $7.3459 \times 10^{22}$  kg (kilograms)

Mass of Sun –  $1.988435 \times 10^{30}$  kg (kilograms)

Distance to the Moon- 384400 km (kilometers)

### Mass of other Planet Data:

| Planet                           | Distance from the Sun<br>(Astronomical Units<br>miles<br>km) | Period of<br>Revolution<br>Around the Sun<br>(1 planetary<br>year) | Period of Rotation<br>(1 planetary day) | Mass<br>(kg)          | Diameter<br>(miles<br>km)  | Number of<br>Moons                      |
|----------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------|-----------------------|----------------------------|-----------------------------------------|
| <b>Mercury</b>                   | 0.39 AU, 36 million miles<br>57.9 million km                 | 87.96 Earth days                                                   | 58.7 Earth days                         | $3.3 \times 10^{23}$  | 3,031 miles<br>4,878 km    | 0                                       |
| <b>Venus</b>                     | 0.723 AU<br>67.2 million miles<br>108.2 million km           | 224.68 Earth<br>days                                               | 243 Earth days                          | $4.87 \times 10^{24}$ | 7,521 miles<br>12,104 km   | 0                                       |
| <b>Earth</b>                     | 1 AU<br>93 million miles<br>149.6 million km                 | 365.26 days                                                        | 24 hours                                | $5.98 \times 10^{24}$ | 7,926 miles<br>12,756 km   | 1                                       |
| <b>Mars</b>                      | 1.524 AU<br>141.6 million miles<br>227.9 million km          | 686.98 Earth<br>days                                               | 24.6 Earth hours<br>=1.026 Earth days   | $6.42 \times 10^{23}$ | 4,222 miles<br>6,787 km    | 2                                       |
| <b>Jupiter</b>                   | 5.203 AU<br>483.6 million miles<br>778.3 million km          | 11.862 Earth<br>years                                              | 9.84 Earth hours                        | $1.90 \times 10^{27}$ | 88,729 miles<br>142,796 km | 18 named<br>(plus many<br>smaller ones) |
| <b>Saturn</b>                    | 9.539 AU<br>886.7 million miles<br>1,427.0 million km        | 29.456 Earth<br>years                                              | 10.2 Earth hours                        | $5.69 \times 10^{26}$ | 74,600 miles<br>120,660 km | 18+                                     |
| <b>Uranus</b>                    | 19.18 AU<br>1,784.0 million miles<br>2,871.0 million km      | 84.07 Earth<br>years                                               | 17.9 Earth hours                        | $8.68 \times 10^{25}$ | 32,600 miles<br>51,118 km  | 15                                      |
| <b>Neptune</b>                   | 30.06 AU<br>2,794.4 million miles<br>4,497.1 million km      | 164.81 Earth<br>years                                              | 19.1 Earth hours                        | $1.02 \times 10^{26}$ | 30,200 miles<br>48,600 km  | 2                                       |
| <b>Pluto</b> (a dwarf<br>planet) | 39.53 AU<br>3,674.5 million miles<br>5,913 million km        | 247.7 years                                                        | 6.39 Earth days                         | $1.29 \times 10^{22}$ | 1,413 miles<br>2,274 km    | 1 large (plus 2<br>tiny)                |