

Name \_\_\_\_\_ Date \_\_\_\_\_ Hour \_\_\_\_\_

### Planetary Rotation Extra Credit

Calculate each planet's rotational speed at its equator. You will need to know the circumference of each planet in order to solve the rotational speed. Use  $\pi d$  to determine the planet's circumference. Express your answers in km/h. You must show all of the math in order to receive full credit. Round to the nearest km.

#### Mercury

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

#### Venus

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

#### Earth

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

#### Mars

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

### Jupiter

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

### Saturn

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

### Uranus

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

### Neptune

Diameter \_\_\_\_\_

Rot. time \_\_\_\_\_

Example: Planet diameter -5800km, rotation time-0.37years

$$5800 \times 3.14 = 18,212\text{km}; \quad \frac{18,212\text{km}}{0.37\text{y}} \times \frac{1\text{y}}{365.25\text{d}} \times \frac{1\text{d}}{24\text{h}} = \frac{18,212\text{km}}{3243\text{h}} = 5.6\text{km/h or } 6\text{km/h}$$