Name _____ Date _____

Regents Physics Unit 3 WS 2

Period _____ Mr. Moy

Circular Motion

1. What is the period of a ball swung around in a circle of radius 0.58 meters at 3.7 m/s?

2. What is the speed of a rubber stopper traveling in a circle of radius 0.71 m if it takes 1.0 seconds to travel 10 times around the circle?

3. Assuming that the Earth moves around the sun in a circular path with radius $1.5 \times 10^8 km$ at a constant speed, and the period is one year, what is the orbital velocity in km/hr?

4. Four friends are on a merry-go-round as shown below. The friend on the outside keeps getting sick, no matter which friends it is. It takes 3.5 seconds for the merry-go-round to complete a full circle. Determine the speed for each friend. (You'll see why the outside kid always gets sick).