

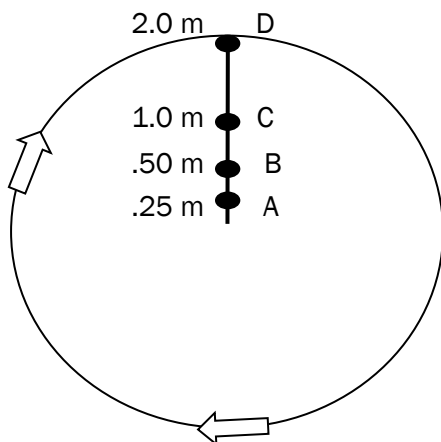
Name _____
Honors Physics
Period _____

Date _____
Gravity and Circles WS #3
Mrs. Nadworny

Circular Motion

Directions –Solve the following problems using the GUESS method and correct significant figures. Be sure to show ALL work!

1. What is the period of a ball being swung around in a circle of radius 0.65 meters at 3.1 m/s?
2. What is the speed of a rubber stopper traveling in a circle of radius 0.62 m if it takes 1.0 second to travel 10 times around the circle?
3. Assuming that the Earth moves around the sun in a circular path with radius 1.5×10^8 km at a constant speed, and the period is one year, what is the orbital speed 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 friend it is. It takes 3.0 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)



Answers in size order: 0.52, 1.0, 1.3, 2.1, 4.2, 39, 1.1×10^5