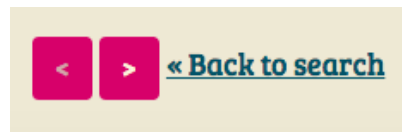
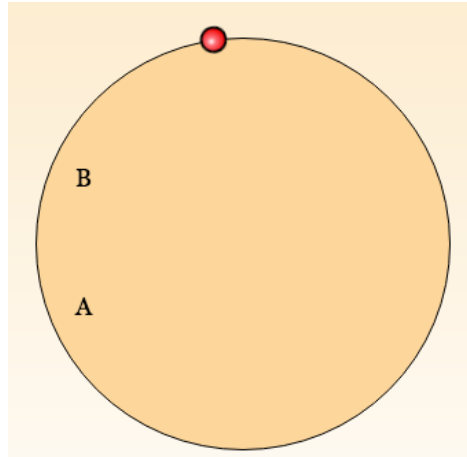


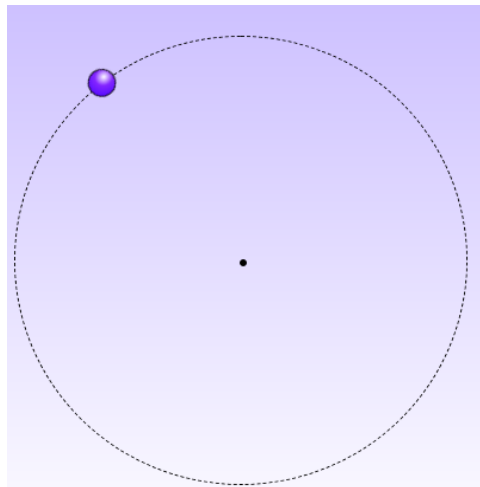
Name: _____

Circular Motion Intro

1. Go here: bit.ly/2D9Q6pc
2. Draw the individual velocities on the circle at points A and B below. Click on “The object is moving in a circular path” to reveal the velocities.

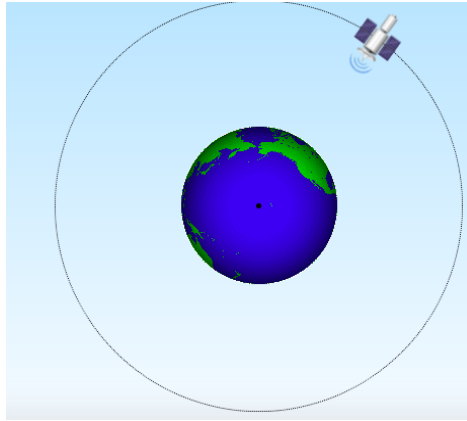


3. Click to the next page by clicking the right arrow
4. Check all the bubbles to show “Show centripetal acc” and “Show velocity”.
5. Label the centripetal acceleration and velocity below.



6. Skip the “Conical pendulum” section and go to “Car on a circular path”.
7. Which way does the friction force point? **This is the centripetal force!**
8. What happens to the centripetal force when you “Wet road surface”?

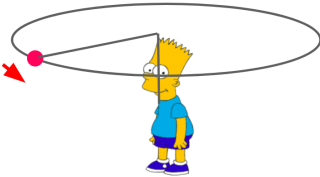
9. Go to the next section titled "Orbital motion". Draw the centripetal force below.



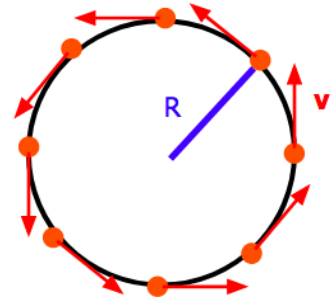
10. Where does the centripetal force always point?

Pickle:

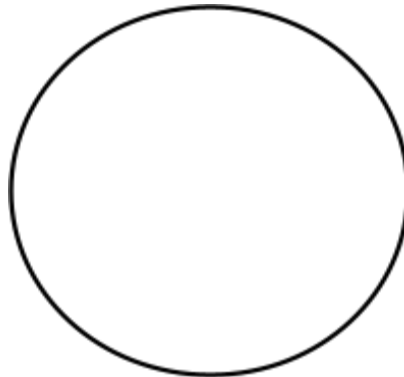
1. Bart swings the tennis ball around his head in a circle. The ball is accelerating, what force makes it accelerate?



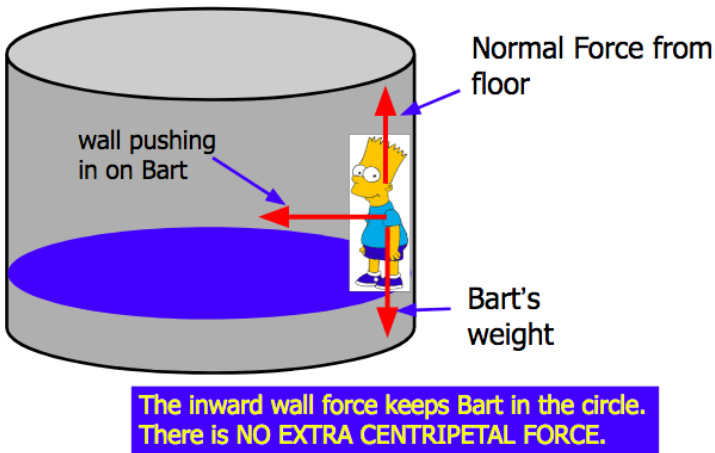
2. Write down what Pickle explains about the diagram to the right.



3. Label centripetal acceleration, centripetal force, and velocity on the circle below.



4. Let's talk about this figure. Make notes to the side.



5. When you swing a ball in a circle, why does it stay moving in the a circle?

6. What is the equation for centripetal acceleration?

7. Now, we can find centripetal force using.....

8. When you swing a ball in a circle, why does it stay moving in the a circle?

9. Example together:

You are doing donuts in your car in the parking lot. You put a force of 1000 N on the car by turning the steering wheel. Your car has a mass of 1200 kg and a velocity of 7 m/s. What is the radius of your donut?

10. On your own:

a) If you are swinging the ball with a velocity of 2 m/s, and the length of the string is 0.5 m, what is the centripetal acceleration?

b) If the mass of the ball is 3 kg, what is the centripetal force on the ball?