**QUESTIONS TO HAND IN – EXPERIMENT 10**

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**LAB INSTRUCTOR\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_LAB DAY/TIME\_\_\_\_\_\_\_\_\_\_ \_ \_\_**

**1.** If the speed of an object in uniform circular motion is held constant, but the radius of the circle is increased, the centripetal acceleration (circle one):

**increases/decreases/stays the same**.

**2.** For a fixed radius for the circular motion, an increased period means that the speed (circle one):

**increases/decreases/stays the same**.

**3.** In this experiment, the centripetal force is supplied by the spring force. What provides the centripetal force that keeps a satellite in orbit?

**4.** A 30 kg child is riding on a playground merry-go-round at a distance of 2 m from the center. The merry-go-round rotates with a period of 10 s. What is the child’s speed?

**5.** In the problem above, what is the centripetal force on the child, and what agency provides it?