

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?