Name_____

Show your work, round to the correct significant figures, circle your answers, and label them with units.

1. With what maximum velocity can a car go around a 324 m radius curve if it cannot exceed 0.330 "g"s of lateral acceleration?

2. A Centrifuge has a radius of 5.80 cm, and spins at 2500. RPM. What is the centripetal acceleration?

3. What centripetal force would make a 110. kg bike and rider go 14.0 m/s around a 25.0 m radius corner?

4. A spinning carnival ride has a radius of 3.20 m. What is the period of the ride if it is exerting a centripetal force of 918 N on a 52.0 kg person?

5. What is the minimum coefficient of friction needed for a 1198 kg car to go 25.0 m/s around a level corner with a radius of 310. m? What about a 3150 kg SUV?