Physics
Group Quiz7.1 - Circular Motion

Name_____

Show your work, and circle your answers and use sig figs to receive full credit.

1. With what maximum velocity can a car go around a 420. m radius curve if it cannot exceed 8.50 m/s/s of lateral acceleration?

2. A Centrifuge has a radius of 5.75 cm, and generates 2750 m/s/s of centripetal acceleration. What is the period of its motion?

3. A 1210 kg car going around an 87.0 m radius corner experiences a centripetal force of 7,450 N. What speed is it going?

4. A spinning carnival ride has a radius of 5.20 m and a period of 4.15 seconds. What centripetal force does it exert on a 60.0 kg person

5. A penny sits 8.90 cm from the center of a turntable. There is a coefficient of friction of 0.230 between the penny and the turntable. What is the minimum period that the turntable can have without the penny sliding off?