

Name _____

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

1. A rollercoaster goes into an inverted circle that has a radius of 3.95 m. What is the minimum speed it can have for the riders to not fall out of their seats?

2. A Ferris Wheel pulls 0.350 "g"s of centripetal acceleration in a vertical circle. What "g" force do the riders feel at the top and at the bottom?

3. Riders on a Rock O Plane read 1.830 "g"s at the bottom. What "g"s is the ride doing, and what "g"s would they measure at the top? What is the acceleration of the ride in m/s/s?

4. A Ferris Wheel has a radius of 8.20 m and a tangential velocity of 4.15 m/s. What "g" force do they read at the top and the bottom of the ride?

5. A vertical circle ride generates a "g" force of -0.310 "g" (inverted "g"s) at the top. If the ride has a radius of 4.80 m, what is the period of the ride?