

Physics Homework

Name _____

Date _____ Period _____

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1. A wheel starts from rest. How far will the wheel roll if it accelerates to 150rpm in 18s. The radius of the wheel is 0.50m.

2. Find the acceleration due to gravity at a point 5 earth radii above the surface of the earth.

3. How high must a satellite be placed above the earth in order to have a period of 24 hours. This satellite would stay over the same spot on the earth and be called a geosynchronous orbit.

4. A force of 150N is applied to the end of a 45cm wrench. Find the torque produced.

5. A 5.0m bridge is supported at both ends. The bridge has a mass of 2500kg. There is a 1200kg truck 1.5m from the right end of the bridge. Find the force needed to support each end of the bridge.