

Physics Homework

Name _____

Date _____ Period _____

**Show PAWS**

1. An object with mass 25kg rests on the surface of a planet with the same radius as the earth, but exactly double the mass of the earth. Find the weight of the object.
2. A 2.0kg mass is swinging in a vertical circle on a 75cm string. If the velocity of the mass is 3.0m/s what is the maximum and minimum force exerted by the string?
3. Tarzan swings from a vine 10m long. When he reached the bottom of his swing he is traveling 8.0m/s. If the vine has a maximum strength of $1.0 \times 10^3\text{N}$, what is the maximum mass Tarzan can have without breaking the vine?
4. Find the gravitational attraction between a bowling ball with a mass of 7.3Kg and a bowling pin with a mass of 3.0kg when the ball is exactly 25cm from the pin.
5. A satellite is placed in orbit around the earth. If the satellite is placed 1000km above the surface of the earth, what is the time for the satellite to orbit the earth once?