



Accelerometer: Centripetal Acceleration

- 1) What is the equation used for determining centripetal force and describe all components of that equation?
- 2) What is the equation used for determining centripetal acceleration and describe all components of that equation?
- 3) How does the accelerometer work? Please use pictures to describe how it works?
- 4) A round basket ball with a circumference of 50 cm is balanced on the tip of a finger and is spinning at a rate of 15 rev/sec. What is the centripetal acceleration of a point of the basket ball?
- 5) A half-kilogram gum-ball around on the edge of a plate with an area of 1.5 sq. meters. In order to have a centripetal force of 100 Newtons, how many revolutions per second must the gum-ball make in rads/ sec?
- 6) If accelerometer is measuring all three axes, then would the change in g be the same across all three axes? Why or why not?