**Centripetal Acceleration Activity – Accelerometer Worksheet**

1. What is the equation used for determining centripetal force and describe all components of that equation?

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1. How does the accelerometer work? Please use pictures to describe how it works (use the backside of this sheet for drawing)?

1. 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?

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1. A half-kilogram around gum-ball rests on the edge of a plate with an area of 1.5 sqr. meters. In order to have a centripetal force of 100 Newtons, how many revolutions per second must the gum-ball make in rads/ sec?

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1. If accelerometer is measuring all three axes, then would the change in *g* be the same across all three axes? Why or why not?