

# Wk 24 Spinny Ride

g's for your spinny ride

name: \_\_\_\_\_

**Time for 10 spins:** \_\_\_\_\_ **s**

**Radius:** \_\_\_\_\_ **m**

$$accel_{CENTRIPETAL} = \frac{v^2}{r}$$

then divide by 10 to convert to g's

**SHOW WORK!**

a) Calculate the time it takes to spin around once.

b) Calculate the distance the Lego person goes around each spin. (circumference =  $2 \cdot \pi \cdot \text{radius}$ )

c) Calculate the Lego person's velocity. (velocity = distance / time)

d) Use the formula to calculate the centripetal acceleration of the Lego person.

e) How many g's is that?