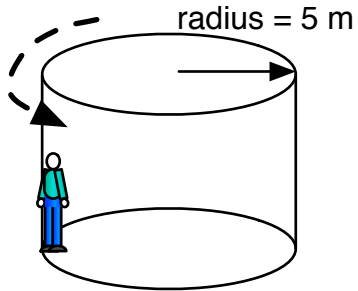


Wk 24 Spinny Ride Project

name: _____

Spinny Ride Sample



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

then divide by 10 to convert to g's

SHOW WORK!

1. The Gravitron ride takes 20 seconds to spin around 5 times.

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

b) Calculate the distance the person goes around each spin. (circumference!)

$$c = 2\pi r$$

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

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

e) How many g's is that?

Wk 24 Spinny Ride Project

name: _____

g's for your spinny ride

SHOW WORK!

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

then divide by 10 to convert to g's

Time for 5 spins: _____ s

Radius: _____ m

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

b) Calculate the distance the person goes around each spin. (circumference!)

$$c = 2\pi r$$

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

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

e) How many g's is that?