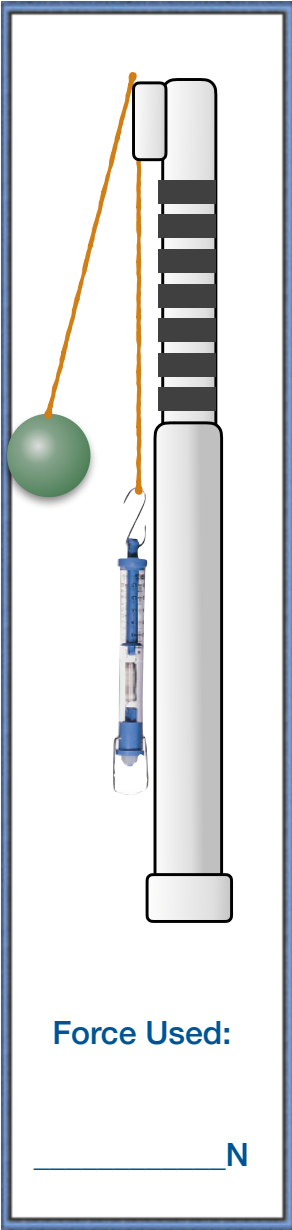


# Centripetal Force

Name \_\_\_\_\_ Date \_\_\_\_\_



## Measurements - radius and velocity:

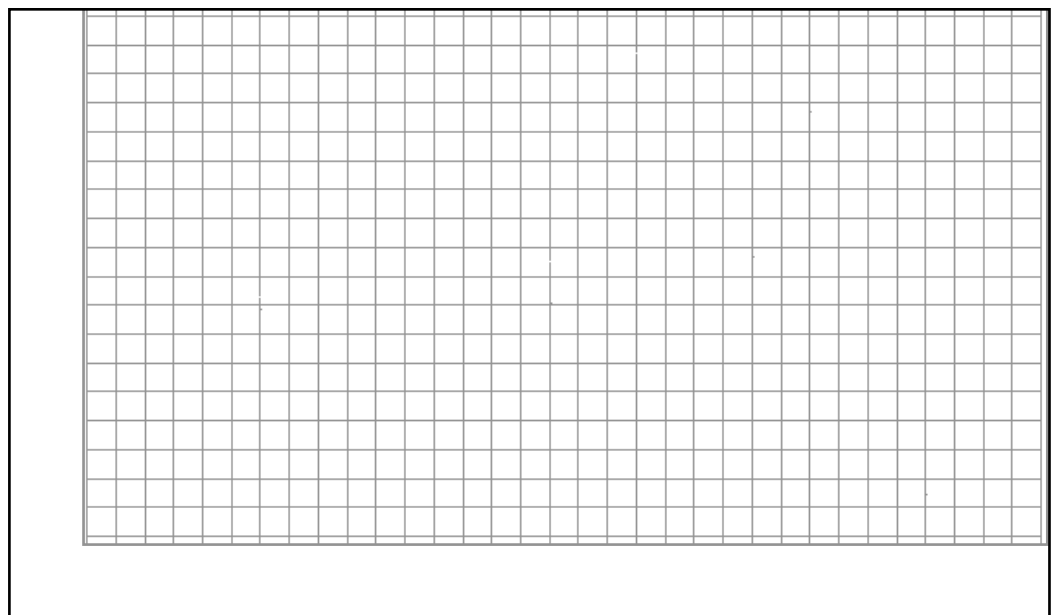
Use a stopwatch to find the time for 20 revolutions of the ball. You must be sure to maintain a constant force for each of the trials.

	Radius (in m)	Time (20 rev)	Period (1 rev)	velocity (m/s)	v <sup>2</sup> (m <sup>2</sup> /s <sup>2</sup> )
1					
2					
3					
4					
5					

## Graph the results:

Plot the radius on the Y axis and the square of the velocity on the x axis.

Use the slope of the line to calculate the mass of the rubber stopper



Slope

\_\_\_\_\_

Experimental Mass

\_\_\_\_\_

# Centripetal Force

Name \_\_\_\_\_ Date \_\_\_\_\_

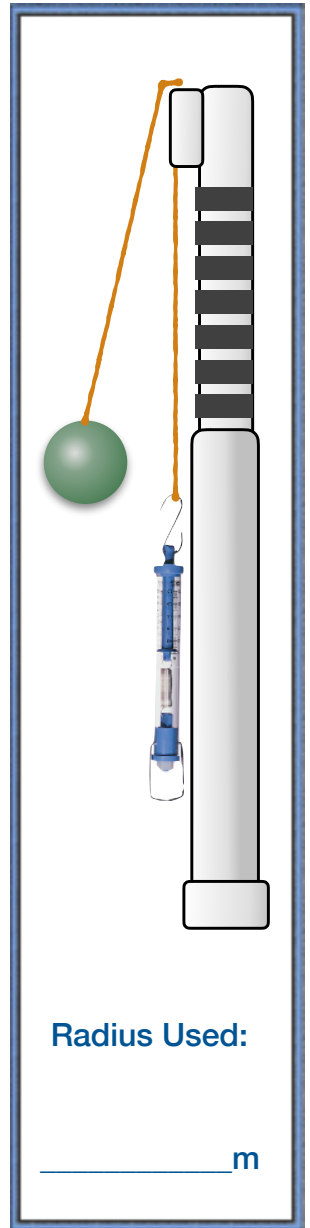
## Measurements - Force and velocity:

Use a stopwatch to find the time for 20 revolutions of the rubber stopper. You must be sure to maintain a constant radius for each of the trials.

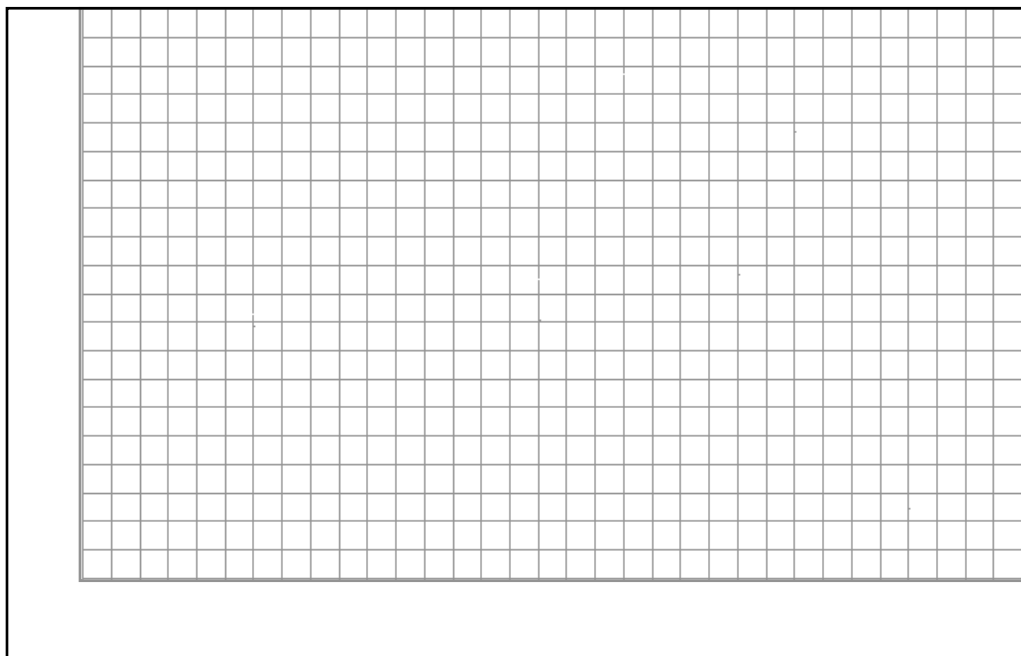
## Graph the results:

Plot the force on the Y axis and the square of the velocity on the x axis.

Use the slope of the line to calculate the mass of the rubber stopper



	Force (in N)	Time (20 rev)	Period (1 rev)	velocity (m/s)	v <sup>2</sup> (m <sup>2</sup> /s <sup>2</sup> )
1					
2					
3					
4					
5					



Slope  
\_\_\_\_\_

Experimental Mass  
\_\_\_\_\_