Worksheet 10: Rotational Inertia

Name: _____ **Due April 23, 2026**

Partner: _____ Pencil only: use of Pen is forbidden.

As usual, turn your Excel document into the Google drive. Plots should use the class template, AND have proper axis labels, rational sig-figs on the axes, labels, a good trendline, etc.

Since there is also an abstract due for this lab, this worksheet has no discussion questions.

Static Measurements		
Quantity	**Units**	**Result**
Serial number	-	
m_{clip}	g	±
m_{block}	kg	±
Sample block dimension x_1	cm	±
Sample block dimension x_2	cm	±
Sample block dimension x_3	cm	±
w	cm	±
L	cm	±
D_{rim}	cm	±
H	cm	±
d	cm	±
D	cm	±

Static Calculations		
Quantity	**Units**	**Result**
R	cm	
V_{brick}	cm^3	
ρ_{steel}	kg/cm^3	
ρ_{steel}	kg/m^3	

Cylinder Calculations			
	V (cm^3)	**m (kg)**	**I ($kg \cdot cm^2$)**
Large			
Small A			
Small B			
Total			

Results		
I_{static}	(±)	$kg \cdot cm^2$
Slope, τ vs α	(±)	$kg \cdot cm^2$
$I_{dynamic}$	(±)	$kg \cdot cm^2$