Optional Rotational Inertia Worksheet

Name:_____ Partner: _____

"Static" Results

Quantity	Units	Value	Uncertainty
Measurements			
Reference brick:			
L_{Brick}	cm		
W_{Brick}	cm		
H_{Brick}	cm		
m_{Brick}	g		
Cylinders:			
$Circumference_{\text{A}}$	cm		
D_{B}	cm		
D_{C}	cm		
L_{A}	cm		
L_{B}	cm		
L_{C}	cm		
Calculations			
ρ	g/cm^3		
R_{A}	cm		
R_{B}	cm		
R_{C}	cm		
m_{A}	g		
m_{B}	g		
m_{C}	g		
I_{A}	g·cm^2		
I_{B}	g·cm^2		
I_{C}	g·cm^2		
I_{Total}	g·cm^2		

"Dynamic" Results

g (cm/s^2)		…						
R_{A} (cm)		…	(largest R from above)					
Trial	m (g)	t_1 (s)	t_{tot} (s)	t_2 (s)	ω_1 (rad/s)	ω_2 (rad/s)	α (rad/s^2)	τ (g·cm^2/s^2)
1	…	…	…	…	…	…	…	…
2	…	…	…	…	…	…	…	…
3	…	…	…	…	…	…	…	…