

PHYS221
Moments of inertia

This is a data table. It is not your results (see note below).
If you give this table as results you will be penalized 5 points.
This table is to be included in your lab data section.

Apparatus configuration	Hanging mass (g)	Calculated Friction (N)	Calculated friction torque (N m)	Calculated Tension (N)	Calculated Torque (N m)	Net Torque [column 6 minus column 4] (N m)	Calculated Acceleration (m/s ²)	Calculated angular Acceleration (rads/s ²)
1 st run (wheel only)	50							
2 nd run (wheel only)	100							
1 st run (wheel + 3 added masses)	50							
2 nd run (wheel + 3 added masses)	100							

Plot **net torque vs. angular acceleration** for both parts of experiment (use Equation 3 of procedure) and the **slope(s)** will equal the calculated moments of inertia (**I₀** and **I_{0+ MASS_ADDED}** in **Results**). Be sure and include the origin (0,0) with your measured plot points.

Results

Primary- A statement summarizing primary observations from plot above.

Secondary-

Moment of inertia (**no** added masses)- **I₀** = _____ kg m²

Moment of inertia (**with** masses added) **I_{0+MASS_ADDED}** = _____ kg m²