Physics Lab Handout 11 "Atwood's Machine"

Your Name:_____ Lab Partner(s):_____

Problem: How do you determine the mass of a small washer using an Atwood Machine?

Hypothesis: _____

_____

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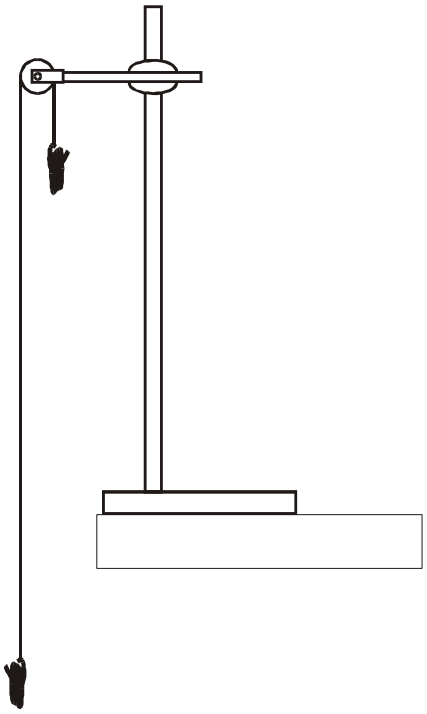
Materials:

ring stand	ring clamp	pulley
meter stick	10 large washers	C-clamp
paperclips	small washer	string
stopwatch	balance	

Caution: (no special concerns)

Procedure:

1. Rig up an Atwood machine using a low friction pulley, a ring stand, and a clamp as shown in the drawing.
2. A light string should be run over the pulley. Attach a paper clip to the two ends of the string. Add five large washers to the paperclips on each side. The mass on each side should be balanced so the system does not accelerate.
3. Measure and record the mass on each side.
4. Take one small washer and add it to one of the paper clips tied onto the string.
5. Determine the mass of the small washer using the Atwood Machine.
6. Once you have calculated the mass of the small washer, measure it directly to determine your percent error.
7. May the force be with you.



Observations:

Data:

Diagram:

Conclusion: _____

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