"String in the Glass Tube" Lab. *On the back, sketch the experimental setup and make appropriate free body diagrams.*

	Stopper Mass	Hanging Mass	Hanging Weight	Radius	Time for 20 revolutions	Time for 1 revolution	v_T (calculated from time)	a_c (calculated from time)	v_T (calculated F=ma$_c$)	% difference in v_T
Constant Radius, Changing Mass										
1				0.75m						
2				0.75m						
3				0.75m						
Constant Mass, Changing Radius										
1				0.50m						
2				0.75m						
3				1.0m						

Questions:

1. What type of force acts centripetally in this investigation?

2. What happened to the centripetal acceleration as you increased the centripetal force?

3. What happened to the centripetal acceleration as you increased the radius?

4. Are the % differences you obtained for the tangential velocity acceptable? (less than 10%?) If not, see your instructor.

5. How could you improve the experimental setup to further eliminate errors?