

	A	B	C	D	E	F	G	H	I	J	K
1	Your name		Date								
2	Partner's name										
3											
4	<b>Phys 1101/1120 - Surrey Campus</b>				<b>DISCLAIMER: These example data are purposefully inaccurate. You may test your spreadsheet equations for correctness using these values, but your real experimental values will be very different.</b>						
5	<b>Expt. 2: Uniform Circular Motion</b>										
6											
7	<b>DATA</b>										
8											
9	<b>Hanging mass:</b>				<b>Trolley mass:</b>			<b>Acceleration due to gravity:</b>			
10	<b>m<sub>h</sub> (g)</b>	<b>dm<sub>h</sub> (g)</b>	<b>(dm/m)<sub>h</sub></b>		<b>m<sub>t</sub> (g)</b>	<b>dm<sub>t</sub> (g)</b>	<b>(dm/m)<sub>t</sub></b>		<b>g (m/s<sup>2</sup>)</b>	<b>dg (m/s<sup>2</sup>)</b>	<b>dg/g</b>
11	73	0.05	0.07%		100	0.05	0.05%		9.81	0.01	0.10%
12											
13	<b>Radius of rotation:</b>				<b>Period of rotation:</b>						
14	<b>r (cm)</b>	<b>dr (cm)</b>	<b>dr/r</b>		<b>T (s)</b>	<b>dT (s)</b>	<b>dT/T</b>				
15	20	1	5.00%	1	1.04	0.0104	1.00%				
16				2	1.04	0.0104	1.00%				
17				3	1.03	0.0103	1.00%				
18				4	1.04	0.0104	1.00%				
19				5	1.05	0.0105	1.00%				
20				6	1.04	0.0104	1.00%				
21				7	1.03	0.0103	1.00%				
22				8	1.04	0.0104	1.00%				
23				9	1.04	0.0104	1.00%				
24				10	1.05	0.0105	1.00%				
25											
26	<b>CALCULATIONS:</b>										
27											
28	<b>Hanging mass:</b>				<b>Trolley mass:</b>			<b>Force due to hanging mass:</b>			
29	<b>m<sub>h</sub> (kg)</b>	<b>dm<sub>h</sub> (kg)</b>	<b>(dm/m)<sub>h</sub></b>		<b>m<sub>t</sub> (kg)</b>	<b>dm<sub>t</sub> (kg)</b>	<b>(dm/m)<sub>t</sub></b>		<b>F<sub>g</sub> (N)</b>	<b>dF<sub>g</sub> (N)</b>	<b>dF/F</b>
30	0.073	0.00005	0.07%		0.1	0.00005	0.05%		0.71613	0.0008795	0.12%
31											
32	<b>Radius of rotation:</b>				<b>Average Period:</b>			<b>Net Force:</b>			
33	<b>r (m)</b>	<b>dr (m)</b>	<b>dr/r</b>		<b>T<sub>ave</sub> (s)</b>	<b>dT<sub>ave</sub> (s)</b>	<b>(dT/T)<sub>ave</sub></b>		<b>F<sub>n</sub> (N)</b>	<b>dF<sub>n</sub> (N)</b>	<b>(dF/F)<sub>n</sub></b>
34	0.2	0.01	5.00%		1.04	0.0042164	0.41%		0.7300003	0.0369787	5.07%