

<u>Data</u>							
Gravitational constant, (g), N/kg	9.81						
Rotating mass(m), g	15	= 0.015kg					
Counterweight(M), g	25	= 0.025kg					
Radius(r), cm	30	= 0.30m					
Circumference = $2\pi r = 2 \times \pi \times 0.30 \text{ m}$	1.88						
10 x Circumference, m	18.84						
<u>Measurements</u>							Average
Time for 10 revolutions, s	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	time,s
	8.40	8.30	8.40	8.20	8.30	8.40	8.33
Velocity(v), m/s							
=10 x Circumference/Average time	= 18.84x10/8.33	= 2.25m/s					
Tension = Mg	= 0.025x9.81	= 0.245N					
Calculated value of mv^2/r	= 0.015x2.25 ² /0.30	= 0.253N					