

Pendulum Lab

Observation/Hypothesis:

Based on the fact that we keep two of the three variables always constant, the pendulum will have a longer swing period if the 1. Mass of the ball was made bigger, 2. The length of the string was made longer and 3. The angle of the balls height was raised. This is true because these variables and the swing period are directly proportional.

Procedure:

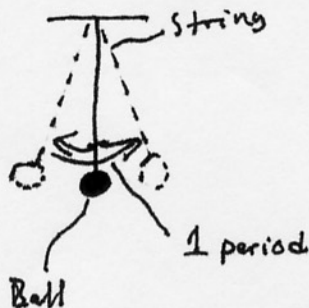
I'm going to change only one variable at a time, either lower or raise the 1. Mass, of the ball, 2. Angle of the string, or 3. The length of the string.

Trial #	Amplitude of String (Degrees)	Length of String (cm)	Mass of the Ball (Grams)	Period Time of 5 Cycles (Seconds)
1	60	117	20	11.78
2	45	117	20	11.57
3	30	117	20	11.06
4	30	117	100	11.19
5	30	117	200	11.22
6	30	80	100	9.15
7	30	40	100	6.69

Analysis/Conclusion:

From analyzing our results, I have learned that the greater our variables were made, the longer our swing period became. Our hypothesis was supported by our results.

Diagram



3 Variables

1. length of string
2. mass of ball
3. angle of ball suspended