

# Pendulum Worksheet

Plumb bob size	Release angle	Pendulum length (m)	Pendulum Period Measurement				
			Time 1 (s)	Time 2 (s)	Time 3 (s)	Time 4 (s)	Average Time (s)
S or L	5°						
S or L	15°						
S or L	5°						
S or L	15°						
S or L	5°						

## Post-Lab Questions

- Calculate the average (mean) period times for each test in the Data Table. Record the calculations in the Data Table.
- Compare the swing periods of pendulums with different starting angles. How do the different release angles affect the swing period?
- Compare the swing periods of pendulums with different masses, but the same length and starting angle. How do the different masses affect the swing period?
- How does the length of the pendulum affect the swing period?
- Based upon the data from this experiment (True or False):
  - T F The period of a pendulum is not affected by the mass of the plumb bob on the end of the pendulum.
  - T F The period of a pendulum is affected by how high the pendulum is raised before it is released.
  - T F The period of a pendulum increases as the pendulum length decreases.
  - T F A grandfather clock will “tick-tock” faster when the pendulum is released with a large swing arc compared to a small swing arc.