Predicting the Period of a Simple Pendulum

A simple pendulum may be constructed using string, a nail, and a weight. The time it takes for the weight to swing back and forth is called the period, P, of the pendulum; the distance and between the fixed point (nail) and the weight is called the length, L, of the pendulum.
(See Figure 1)

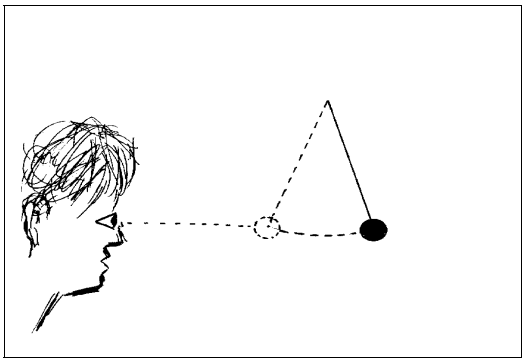

Figure 1.

Use Figure 2 to sketch a rough graph, without concern for the scale on either axis, that represents what you predict to be the functional relationship between a pendulum's period (in seconds) and its length (in meters).

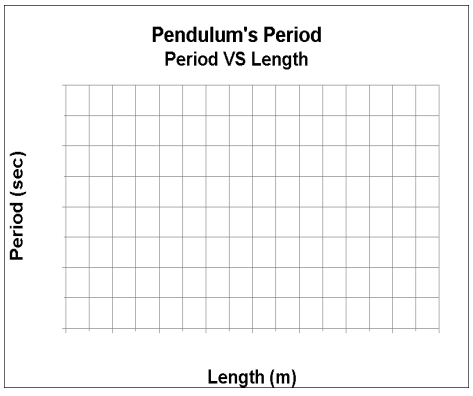

Figure 2

Sample Data:

Pendulum's Length (m)	Pendulum's Period (sec)
0.1	0.63
0.2	0.90
0.3	1.08
0.4	1.26
0.5	1.40
0.6	1.55
0.7	1.68
0.8	1.80
0.9	1.90
1.0	1.99
1.1	2.12
1.2	2.19
1.3	2.27
1.4	2.37
1.5	2.44