

CONSERVATION OF ENERGY LAB

(data)

The mass of the BOB was measured to be .500 kg.

Part A: (one full swing data):

Initial position above ground = .9 meters.

“Final” position above ground after one swing (three takes): .875 m

.870 m

.865 m

Part B: (through bottom of arc):

$L = 2.08$ m (length of rope from ceiling to BOB's center of mass);

$d = 0.0426$ m (BOB's diameter);

$h = 0.493$ m (height from floor to BOB's center of mass);

$t_1 = .0148$ sec (time of photogate disconnect--two separate runs);

$t_2 = .0149$ sec