Name:

Group:

Laboratory Exercise 1 Gravity Survey

We will take a series of gravity measurements to estimate the height of the walkway near the top of the atrium in Howe-Russell. After taking a measurement at a base station, we will take turns taking measurements around the pendulum. At each station, we will record the time, location, temperature, and instrument reading. Periodically we will return to an earlier station to document any instrument drift and/or earth tide effect. We will then return to the base station in Howe-Russell to make a repeat measurement. The instrument readings must be converted to milligals and corrected for instrument drift/Earth Tides. We will not make a latitude correction.

Station	Location	Time	Temp.	Dial	Gravity	Drift Corrected

Survey

Turn in a copy of this data sheet plus 1) an explanation of how you converted dial measurements to mgals; 2) plot of instrument drift/Earth tides correction; 3) estimate of elevation of the walkway using a Free-Air Correction; 4) rationale for ignoring latitude correction; and 5) a brief (paragraph or two) discussion of potential errors in the survey.