Physics 11
Wolfe

Activity: Acceleration of Gravity

Purpose: To calculate the acceleration of gravity from an object's time of travel in free fall.

Materials/Equipment:
Small dense object (your lab partner does not count)
stopwatch (you may use a phone)

Procedure:
Drop an object from the window ledge to the ground below while timing its fall. Use the accepted value of _____ for the window ledge height. Repeat the calculation at least three times.

Calculations:
Use the kinematics distance equation to solve for the acceleration of gravity.
Use the SHORTEST time and LONGEST distance. What is a_g?
Use the LONGEST time and SHORTEST distance. What is a_g?
Use the AVERAGE time and ACCEPTED distance. What is a_g?
Give your result as an answer to 2 sig figs +/- error.