

Project Evaluation Points

Generally:

1. The set-ups are (shortly) described.
2. **The figures added are pertinent (ie, timing residuals and parabola fit)**
3. Tables with final measurements of L , T , g (pendulum) and D , d , a , θ , $\Delta\theta$, g (BoI) are presented.
4. Tables with raw data (for example, table of length measurements) are present (in appendix).
5. **Errors are correctly propagated (cross check either the pendulum or the BoI).**
6. Final value of g – pendulum and BoI (look in abstract)
7. Sound discussion of potential systematics (large swings, CoM-displacements, friction, ball size, etc.).

Pendulum:

8. Time uncertainties are taken from the residuals of the linear fit (or best possible other way).
9. Length of the pendulum compared for consistency using χ^2 .
10. **Discussion related to the χ^2 for any part of the pendulum experiment (e.g. combination of periods).**
11. Clearly computed σ_T and σ_L (individual contributions from T and L to the error on g).

Ball on Incline (BoI):

12. The method for getting the time of the BoI is described well (e.g. turn voltage into times).
13. Acceleration and θ are computed for both start position and reverse position.
14. Individual contributions of a , D , d , θ , and $\Delta\theta$ are discussed for the BoI.
15. Fit to parabola is made. Fit results and χ^2 is reported.
16. **χ^2 performed on relevant measurements of the BoI (consistency between experimenters).**
17. Appropriate discussion of the χ^2 results for the BoI.

Bonus:

18. Bonus for extra precise measurement (must be justified with χ^2 checks).
19. Bonus points for estimating the effect of a systematic.