

PHYSICS 4A 01 and 02:

9-10-13 } LABS

9-12-13

oscillations: CH 14 *

My notes:

S.H.M. Laboratory

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$M = m_0 + M_{EFF}$ used in $T = 2\pi \sqrt{\frac{m}{k}}$ **

$= m_0 + \frac{m_s}{3}$

$\Delta M = \Delta m_0 + \frac{\Delta m_s}{3}$

$= 0.05g + \frac{0.05}{3}g$

$= 0.0667g = 0.07g$ (AFTER ROUNDING)

because of the SUM rule for ADDITION ERRORS. (univ. penn. website)

SIDE COMMENT: *

CH 4 - we PASS THROUGH CHAPTER FIRST without pendulums, OR PHYSICAL pendula. 2ND PASS includes these topics

** note we COMPARE T_{TH} w/ T_{EX} .

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$\frac{R}{N}$, $N=5$ used in online example; we use $N=2$

$T_{EX} =$ AVERAGE:

- 1.2141(s)
- 1.2368(s)
- 1.1892(s)
- 1.1907(s)
- 1.1955(s)

TBEST-EX