

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF PHYSICS
LAB. POLICY

Term : Second Semester 2007 – 2008 (072)
Course Title : Phys 101: Lab 74 and 67
Schedule : Lab: Sat. 2:10 p.m., and Tus: 10:00 a.m.
Instructor : Dr. Ibraheem Nasser
Phone : 2234
E-mail : imnasser@kfupm.edu.sa
Web : <http://faculty.kfupm.edu.sa/phys/imnasser>
Office : Building 6, Room 140
O.H. : Posted in front of my office

- 1- **GRADES**: Out of 20 points: 10 for the Lab report, 5 for the quizzes (at the beginning of each lab. So, you have to read the lab report before coming to your lab.), and 5 for the final exam. **Every class, you have to bring your physics notebook. Also, you have to have your own ruler, eraser, sharpener, pencil, and calculator.**
- 2- **Attendance**: Attendance will be **enforced and evaluated** according to current university regulations. A **DN** grade will be given to any student reaches 3 absences in laboratory experiments without official excuses. **Any student in possession of an excuse for officially authorized absence must present this excuse to his instructor no later than one week following his resumption of class attendance** . No make-up without official excuse.
- 3- **Old grade**: the students that those who scored "F" or "WP" ONLY (not "DN") and repeating the course may carry their old grades provided it is equal to or greater than 12.0.
- 4- **Physics Notebook**: Bring it with you every class.

Lab report should have the following:

- 1- Title (in the middle) and the date of experiment on the right corner (1 point)
- 2- Objective (or objectives) (1 point)
- 3- Theory (in brief) (2 point)
- 4- Data (2 points)
- 5- Data analysis (3 points)
- 6- Conclusion, quote your experimental value. (1)

GRAPHS*: ■ The graph should have:

- (a) a title
- (b) both axes labeled
- (c) units on each axis
- (d) Scales used on each axis
- (e) Points plotted with × or with dot and circle ⊙ .

(*) The graph should cover all the graph paper.

Produce a best straight line (or smooth curve) which passes through most of the points (or leaves equal number of points on either side of the graph).

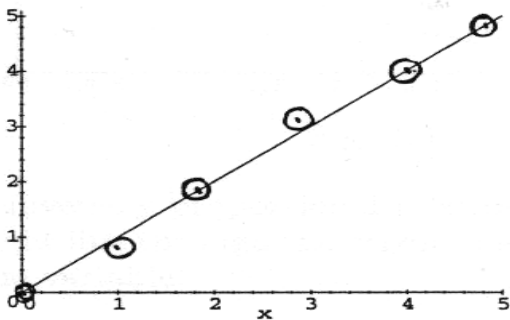


Fig. (a)

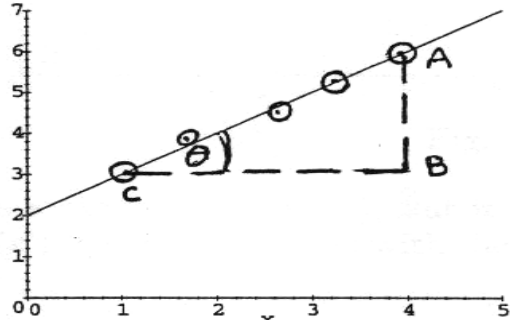


Fig. (b)

GRADIENT or SLOPE: ■ The gradient (or slope) of a line is the tangent of the angle which the line makes with the horizontal.

$$\text{gradient} = \tan \theta = \frac{\overline{AB}}{\overline{BC}} = \frac{\text{Vertical Length}}{\text{Horizontal Length}}$$

- (*) Write the units used for \overline{AB} and \overline{BC} to get the unit of the gradient.
- (*) If the line slopes downwards to the right, the gradient is negative.