Mohammed Khaidar University of Biskra
Academic year: 2023/2024
Faculty of Science and Technology

Group :

Date :

Members of the Group:

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Practical Work Report 2: Free Fall

1- Fill in the table and explain how to fill the table: where
$\Delta h = 2mm$ and $\Delta t = 10^{-4}s$

h(m)	$t_1(s)$	$t_2(s)$	$t_3(s)$	$t_m(s)$	$t^2(s^2)$	$g(m/s^2)$	$\Delta g(m/s^2)$
0.2							
0.3							
0.4							
0.5							
0.6							
0.7							
0.8							

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2-Write g on the shape (form): $g = (g_{moy} \pm \Delta g_{max})$

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3- Draw the graphic curve h = f (t) in millimetric paper. With the drawing of error barriers.

4- Explain the statement of this curve.

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5- Why did we use a metal ball in this experiment?

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6- Based on the curve, determine the intermediate velocities between the heights (0.05-0.15m), (0.25-0.35m), (0.45-0.55m) where $V_{moy} = \dfrac{\Delta h}{\Delta t}$

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7-Compare with Instantaneous velocities at heights, 0.1, 0.3, 0.5 m where $V_{ins} = \dfrac{dh}{dt}$

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What do you conclude ?

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8- Draw the graphic curve h = f (t^2) in millimeter paper. Explain the curve.

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9- Deduce a value of g! Compare it with calculated in question 2. What do you conclude?

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