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| **Worksheet for Lab on Force and Acceleration** | **Name** |  |
|  |  |  |
| $$F=ma$$ | **Date** |  |

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|  | **Partner #1** |  |
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|  | **Partner #2** |  |

 |
| Hand in the following items: |
|  |
| 1. This cover sheet, filled out, with the following printouts stapled after that: |
| 2. Table and graph of $a vs. m\_{H}$ for the experiment done using about 200 grams of slotted masses. |
| 3. Show your calculation of 𝑔 here: |
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| --- | --- | --- |
|  | **Total mass** $m\_{C}+m\_{H}=$ |  |
|  |  |  |
|  | **Slope of** $a vs. m\_{H}$**:** |  |

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|  |
| Please show the steps for the calculation of g: |
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|  | $$g\_{exp 1}=$$ |  |

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| **OVER 🡺** |
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| 4. Table and graph of $a vs. m\_{H}$ for the experiment done using about 300 grams of slotted masses. |
| 5. Show your calculation of 𝑔 here: |
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|  | **Total mass** $m\_{C}+m\_{H}=$ |  |
|  |  |  |
|  | **Slope of** $a vs. m\_{H}$**:** |  |

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|  |
| Please show the steps for the calculation of g: |
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|  | $$g\_{exp 2}=$$ |  |

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| 6. Compare with known acceleration of gravity |
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| Calculate the %difference for each determined value of g. Use accepted value of $g=980. ^{cm}/\_{s^{2}} $ |
|  |
| $$\%diff=\frac{g-g\_{exp}}{g} x 100\%$$ |
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|  | $$\%diff\_{exp 1}=$$ |  |

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|  | $$\%diff\_{exp 2}=$$ |  |

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