Bellwork 4/19 TT&L

① A projectile's horizontal velocity never changes $-9.8 \frac{m}{s^2}$ CONSTANT

~~②~~ A projectile's vertical acceleration increases as it falls

③ A projectile's vertical velocity increases as it falls

Lab: Horizontally Launched Projectile

Objective 1: Determine the velocity of a marble as it leaves the end of a curved ramp horizontally (ie. find the initial velocity of the projectile part of the marble's motion).

Objective 2: Using this same ramp and marble, determine the range of the marble as it leaves the end of the ramp from a new height of _____ m.

Notes:

1) Make sure the end of your ramp is horizontal (so that the initial velocity of your projectile is horizontal) by making sure your marble doesn't roll off when it is placed on the end of your ramp.

2) Do several trials to gain consistency, and use the average(s) in your calculations.

3) Your grade on this lab will be based on the completeness and accuracy of the report you turn in AND the accuracy of your prediction for Objective 2.

4) Your report must include the following for each Objective:

- Objective
- Data taken for the objective in a table
- Analysis (work done) to answer the objective
- Conclusion stating the answer to the objective

Page 1
-Objective
-Data
-Analysis
-Conclusion

Page 2
-Objective
-Data
-Analysis
-Conclusion