Vectors and Projectiles - Lab Notebook Items

For the Map Lab:

Tape the Data table below into the Data section of your lab.

Destination	East-West Legs (mag. and dir'n)	North-South Legs (mag. and dir'n)	Direct Route (mag. and dir'n)
GBS (Lake & Phingsten) to Home Depot (on Willow)	_____ _____	_____ _____	
GBS (Lake & Phingsten) to Northbrook Court	_____ _____	_____ _____	
GBS (Lake & Phingsten) to GBN	_____ _____	_____ _____	
GBS to …	_____ _____ _____	_____ _____ _____	

For the Where Am I? Lab:

Tape the Data table below into the Data section of your lab.

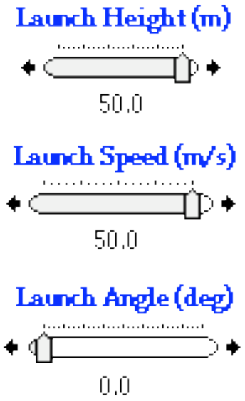
Important!! Show your work in the table:

Vector	East-West Component	North-South Component
A: _____		
B: _____		
C: _____		
R		

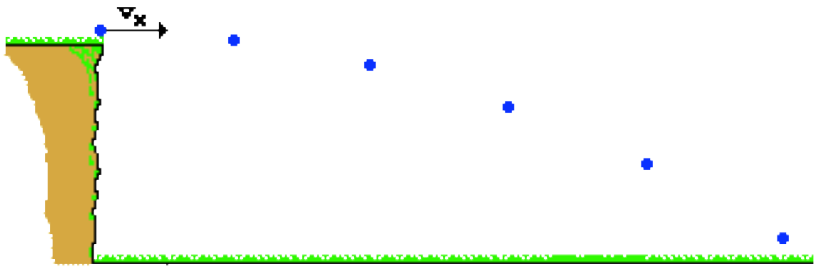
The overall displacement (resultant) is _____ meters with a direction of _____. **Show your calculations below.**

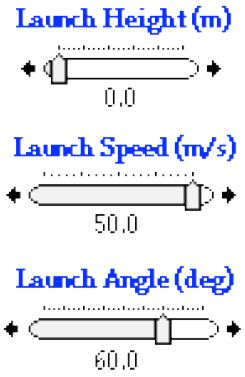
For the Projectile Simulation Lab:

Tape the graphic(s) below into the Data section of your lab.



Run the simulation and draw the x- and the y-components of the velocity at the indicated positions. Scale the vectors to size and label them v_x and v_y.





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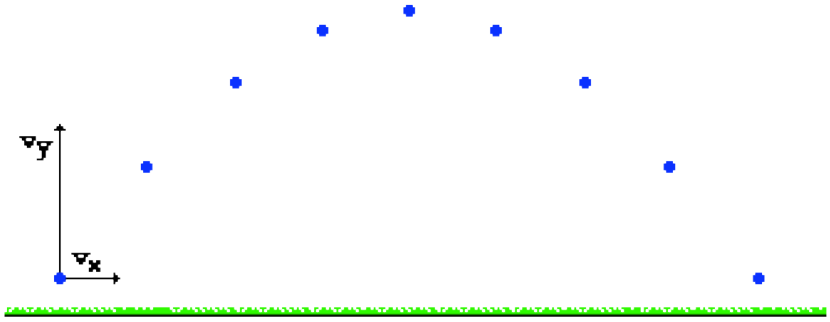

For the Projectile Problem-Solving Lab:

Tape the Data tables below into the Data section of your lab.

Problem Type: Launch Speed and Height Known; Find Horiz. Displacement	
Record given values and use them in solution at the right. v_{ix} = _____ m/s d_y = _____ m d_x = ????	Show your solution below:

For Teacher Use Only: ☐ (A check in this box indicates that you have solved the problem online.)

Problem Type: Launch Speed and Horiz. Displacement Known; Find Launch Height	
Record given values and use them in solution at the right. v_{ix} = _____ m/s d_x = _____ m d_y = ????	Show your solution below:

For Teacher Use Only: ☐ (A check in this box indicates that you have solved the problem online.)

Problem Type: Launch Height and Horiz. Displacement Known; Find Launch Speed	
Record given values and use them in solution at the right. d_x = _____ m d_y = _____ m v_{ix} = ????	Show your solution below:

For Teacher Use Only: ☐ (A check in this box indicates that you have solved the problem online.)