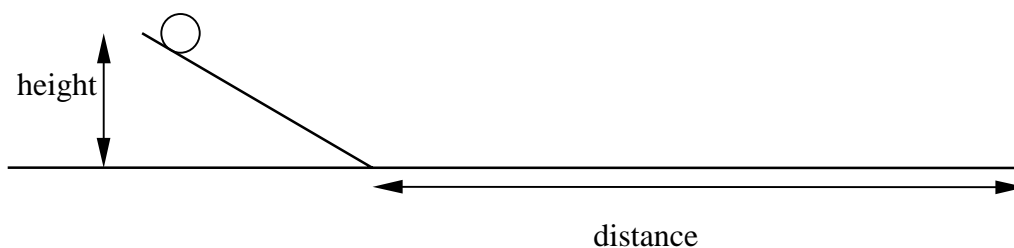


*Using Algebra, functions & graphs***Shoot****Experiment:**

An object is rolled down an inclined plane.



Design and conduct an experiment to see if there is a connection between the distance the object travels and the height of the plane.

Present your findings in terms of a word-processed report. You should use graphical and algebraic techniques to present your findings.

**Equipment**

You will need:-

- An object e.g. ball, cylinder ....
- Inclined plane
- Paper, graph paper
- Rulers, pens, pencils
- Calculator
- Computer disk
- Access to Microsoft Word & Excel

**HELP:** If you do not know where to start, ask your teacher for the guidance sheet.



*Using Algebra, functions & graphs***Guidance Sheet - Shoot**

1. Set up you experiment.
2. Start with the plane at a fixed height. Roll your object down the plane measuring the distance it travels. Repeat this for the same height at least 10 times and put each result into a table. Then find the average distance the object has rolled. Repeat for different heights.

Height	5cm	10cm	15cm	e.t.c.
Reading 1				
Reading 2				
Reading 3				
etc....				

3. Plot a graph of your height against average distance on one sheet of graph paper.  
What does your graphs show ? (Comment on shape, gradients, intercepts .....) )
4. Now try and find what type of curve fits your data and model it using algebra.

**This is designed to start you off - you should be able to take the investigation further.**

