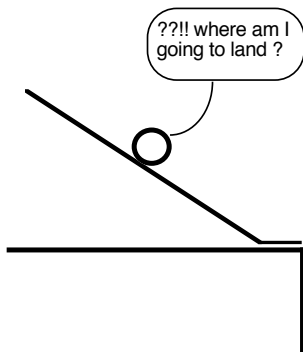


1 - PROBLEM

A slide is placed on the teacher desk. A ball is dropped on this slide without initial speed.
Try to use all your skills to find out where to put a cardboard box to receive the ball on the floor.

2 - EQUIPMENT AT YOUR DISPOSAL

a ball
a slide
a cardboard box
a balance
a ruler
a calliper ruler
a photocell with an electronic clock

**3 - ANTICIPATION**

- Explain how it is possible to find out where the ball will land.
- What are the necessary measurements? Carry them out.
- Calculate the position of the ball when it will reach the floor.

4 - EXPERIMENTAL CHECKING

Carry out the experiment. If you are the first to place the cardboard correctly, you win!

Your report must contain: ✗ the diagrams you think necessary to well understand the situation and your reasoning,
✗ the laws that you want to use,
✗ your whole reasoning (that should contain literal equations before any calculation),
✗ your measurements and your results,
✗ an analysis of the set up and of your results.