

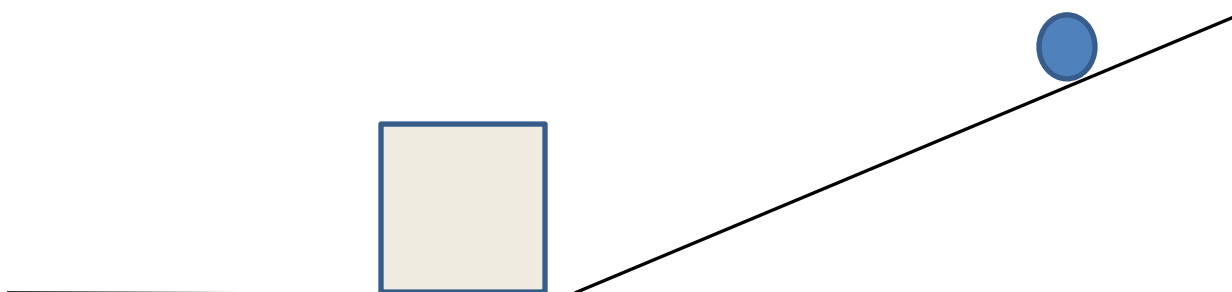
Box Slide

The Scenario

Now that you have completed the “Cup Slide” experiment, we will attempt to do a similar experiment ---- except using a larger sphere and a box. A larger sphere will be released from a taller ramp, and collide with a box at the bottom of the ramp. The box and sphere will slide to a stop. Please see the equipment that your teacher has set up in the front of the room.

The Question

Does the height the sphere is released from the ramp affect how far the box will slide?



The Experiment

Your teacher will explain each step of the experiment as it is conducted. Listen carefully and ask questions if you need clarity or are curious.

Record necessary information on the next page --- and be ready to make a prediction when your teacher asks.

The Effect of Height

Data:



Graph:

Conclusion:

Extension question:

If a bowling ball with 3 times the mass of the duckpin bowling ball is released from half way up the ramp, how far will the box slide?

- a) About 9 times further than the duckpin bowling ball made it slide from that position.
- b) About 3 times further than the duckpin bowling ball made it slide from that position.
- c) About the same distance as the duckpin bowling ball made it slide from that position.
- d) About one-third the distance as the duckpin bowling ball made it slide from that position.
- e) About one-ninth the distance as the duckpin bowling ball made it slide from that position.
- f) Other

Explain your reasoning for your answer to the extension question: