

## Marble Motion

### Steps

1. On a level floor or a table top about 1.5 m long, place a 30-cm metric ruler at an incline of about 1.5 cm. Use a book at one end of the ruler to raise it.
2. Roll a marble down the incline.
3. Record the distance the marble rolls from the bottom of the incline along the table top or floor in two seconds. Repeat this procedure two more times.
4. Record the distance the marble rolls in three seconds, again making three trials.

Time (sec)	Distance (m)		
	Trial 1	Trial 2	Trial 3
2			
3			

### Questions

1. What is the average distance the marble rolls in two seconds? What is its average speed?

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2. What is the average distance the marble rolls in the third second? What is its average speed during that second?

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3. How does the speed during the third second compare with the speed during the first two seconds?

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4. How can you explain the change in speed?

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