

# Question 1

A gas molecule travels toward a wall which is stationary. The molecule rebounds off the wall with the same speed as which it hit the wall. Now suppose that the wall moves toward the molecule at the moment at which the molecule collides with the wall.

Which of the following is true?

1. The molecule rebounds with the same speed.
2. The molecule rebounds with a greater speed.
3. The molecule rebounds with a smaller speed.
4. Any of the above could happen.

## Question 2

The volume of a gas decreases as a result of one of the walls moving inward.

Which of the following is true?

1. Temperature stays constant.
2. Temperature decreases.
3. Temperature increases.