If I heat an enclosed volume of gas so that its Kelvin temperature doubles, what happens to the pressure in the gas?

1. It more than doubles.
2. It doubles.
3. It increases by between 50% and 100%.
4. It increases but by less than 50%.
5. It stays the same
6. It decreases.

If have an enclosed volume of gas and I double the number of molecules, but keep the temperature the same, what happens to the pressure in the gas?

1. It more than doubles.
2. It doubles.
3. It increases by between 50% and 100%.
4. It increases but by less than 50%.
5. It stays the same
6. It decreases.

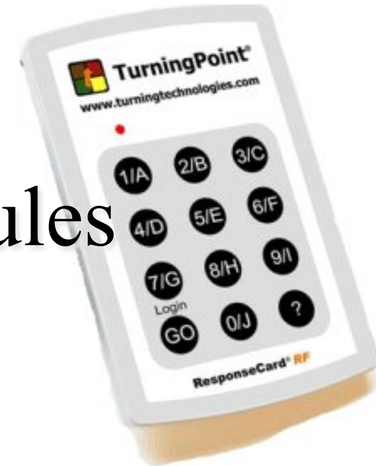
If I heat an enclosed volume of gas so that its Kelvin temperature doubles, what happens to the average speed of the molecules in the gas?

1. It more than doubles.
2. It doubles.
3. It increases by between 50% and 100%.
4. It increases but by less than 50%.
5. It stays the same
6. It decreases.

If have an enclosed volume of gas and I double the number of molecules, but keep the temperature the same, what happens to the average speed of a molecule in the gas?

1. It more than doubles.
2. It doubles.
3. It increases by between 50% and 100%.
4. It increases but by less than 50%.
5. It stays the same
6. It decreases.

If I have an enclosed volume of gas
and double the average speed of the molecules
but keep the Kelvin temperature the same,
what happens to the pressure in the gas?



1. It more than doubles.
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3. It increases by between 50% and 100%.
4. It increases but by less than 50%.
5. It stays the same
6. It decreases.

Question

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- If the molecules in a gas are all moving freely except when they collide with each other (rarely), why don't they fall to the ground?
- Consider a FBD for a gas molecule.