

Physics

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Thermal Physics and Wave

Question 1

 Density of a gas is 0.0023 g cm⁻³ at a temperature of 78°C and pressure of 1 atm. Determine the root mean square of the molecules in the gas?

Question 2



Two blocks with different size are in thermal contact in vacuum.

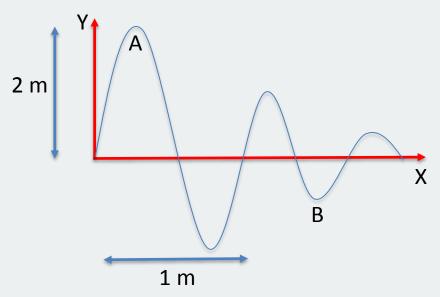
Define:

- Thermal Contact
- Vacuum environment

The two blocks have the same temperature. Make a corresponding statement regarding:

- Internal energy of the two blocks
- Heat transfer or the transfer of thermal energy of both blocks
- Heat capacity of the blocks





The figure above describe a progressive wave in the ocean. Explain the term "progressive wave".

Question 3

- If the wave travel with a period of 0.5 seconds determine the wavelength, frequency, and the speed of the wave
- Determine the phase in point A and B
- Consider no energy loss (constant Amplitude), determine the displacement of point A and B



References

A level complete guide, Themis Publisher, www.xtremepapers.com, Physics MCQ with helps (topical).