

- 13 Two monochromatic radiations X and Y of wavelengths  $\lambda_X$  and  $\lambda_Y$  respectively, are incident normally on a diffraction grating. The third order intensity maximum for X coincides with the fifth order intensity maximum for Y.

What is the ratio of  $\frac{\lambda_X}{\lambda_Y}$  ?

- A  $\frac{1}{2}$
- B  $\frac{3}{5}$
- C  $\frac{5}{3}$
- D Not able to determine with given information.

- 14 Which statement is true for an ideal gas undergoing compression in an insulated container?