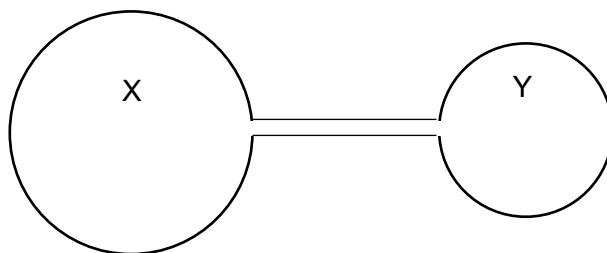


- 21** In the diagram, the volume of bulb X is twice that of bulb Y. The system is filled with an ideal gas and a steady state is established with the bulbs held at 300 K and 600 K.



There is a total of n moles of gas in the bulbs.

How many moles of gas are in bulb X?

A $\frac{1}{3}n$

B $\frac{1}{2}n$

C $\frac{2}{3}n$

D $\frac{4}{5}n$