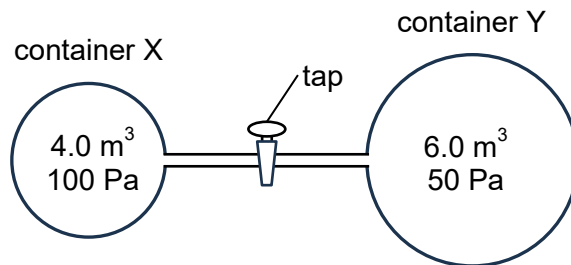


- 11** Two containers X and Y containing an ideal gas are maintained at the same temperature T . X has a volume of 4.0 m^3 and Y has a volume of 6.0 m^3 . The containers are joined by a tube of negligible volume that is fitted with a tap, as shown.



With the tap closed, the pressure in X is 100 Pa and the pressure in Y is 50 Pa.

The tap is open. After some time, the temperature of the gas returns to T .

What is the final pressure in the containers?

- A** 70 Pa
- B** 75 Pa
- C** 80 Pa
- D** 150 Pa