

- 14** A gas cylinder is fitted with a safety valve which releases a gas when the pressure inside the cylinder reaches 2.0×10^6 Pa.

Given that the maximum mass of ideal gas the cylinder can contain at 300 K is 2.0 kg, what is the mass of gas that escapes from the cylinder if it is heated to 400 K?

A 0.50 kg

B 0.75 kg

C 1.2 kg

D 1.5 kg