

## Answer on Question # 68232 - Chemistry -General Chemistry

If I have 4.4 moles of gas held at a temperature of 47C and in a container with a volume of 74 liters, what is the pressure of the gas?

**Solution:**

Ideal gas law:

$$P \times V = n \times R \times T$$

$$T = 47 + 273.15 = 320.15 \text{ K}$$

$$V = 0.074 \text{ m}^3$$

$$P = \frac{n \times R \times T}{V} = \frac{4.4 \times 8.314 \times 320.15}{0.074} = 158265 \text{ Pa} \approx 158.3 \text{ kPa}$$

**Answer:**

158.3 kPa.

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