

Worksheet - Ideal Gas Law

Name _____

Period _____

Date _____

Directions: Show all work including the formula used. Box in your answers with correct units.

1. How many moles of gas does it take to occupy 120 liters at a pressure of 2.3 atm and a temperature of 340 K?
2. If a 50.0 liter container holds 45 moles of a gas at a temperature of 200°C, what is the pressure inside the container?
3. A balloon can hold 122 liter of air. If the balloon is blown up with 3 moles of oxygen gas at a pressure of 1.0 atm, what is the temperature of the balloon?
4. What volume is occupied by 0.580 moles of gas at 98.4 kPa and 11°C?
5. When a sample of gas was placed in a sealed container with a volume of 3.35 L and heated to 105°C, the gas vaporized and the resulting pressure inside the container was 170.0 kPa. How many moles of the gas was present?
6. An engineer wishes to design a container that will hold 14.0 moles of gas at a pressure no greater than 550 kPa and a temperature of 48°C. What is the minimum volume the container can have?