

Boyle's Law

- The _____ of a fixed _____ of gas varies _____ with the _____ at constant _____.
- _____
- _____

Kinetic Theory and Boyle's Law

- _____ of a gas is caused by the _____ of the gas _____ the walls of the _____.
- If the gas is _____ to _____ the volume it had, _____ as many _____ are present in any _____.
- * _____ as many _____ per _____ on the walls of the _____
- * _____ of the gas will _____

Ex 1: A balloon filled with Helium has a volume of 457 mL at standard atmospheric pressure. After the balloon is released, it reaches an altitude of 6.3 km where the pressure is only 65.5 kPa. What is the volume of the balloon at this altitude?

Ex 2: Under a pressure of _____ mm Hg, a confined gas has a volume of _____ mL. If the pressure is increased until the volume is _____ mL, what is the new pressure, assuming the temperature remains constant?

Charles's Law

- For a _____ of gas, as long as the _____ is held _____, the _____ varies _____ with the _____.
- _____
- _____

The Kelvin Temperature Scale

- _____ zero
 - * _____ possible _____
 - * _____ been reached
- _____ = absolute zero
- _____ = _____
- K = _____

Ex 1: A quantity of gas occupies a volume of 506 cm^3 at a temperature of 147°C . Assuming the pressure stays constant, at what temperature will the volume of the gas be 604 cm^3 ?

Kinetic Molecular Theory and Charles's Law

- _____ the _____ of a gas _____ the average _____ of its _____.
- _____ moving molecules
 - * strike the walls of the _____
 - * strike the walls of the _____ with _____
- From _____ law we derive that the _____ would have to _____ if the _____ is _____ so that _____ would remain _____.

The Chemistry Quiz

CR1. _____ CR2. _____ 1. _____ 2. _____ 3. _____ 4. _____ 5. _____