|  |  |  |
| --- | --- | --- |
| The Ideal Gas Law  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues, Weds., &Thurs after school!  After-hours question? Email me at home: [eagenest@madison.k12.wi.us](mailto:eagenest@madison.k12.wi.us) |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. What pressure is exerted by 0.693 moles of oxygen in a 7.55 L vessel at 18°C?
2. Carbon monoxide, a poisonous gas, has a formula of CO. How many moles of carbon monoxide occupies a volume of 0.445 L at 333 kelvins and 1.5 atm?
3. A gas filled weather balloon with a volume of 80.0 L is released at sea level at 102.0 kPa pressure and 27.0°C. The balloon expands to final volume of 835.0L at maximum altitude, where the temperature is 0.00°C. What will be the pressure at this time?
4. A gas filled weather balloon contains 33.0 L of air at 10.0°C at a pressure of 745. Torr. How many moles of gas are in the balloon? (Useful converter: 760 torr = 1.00 atm )
5. At what temperature would you need to have He to have 5.75 moles occupy a volume of 45.0L at a pressure of 125.0kPa?
6. Carbon monoxide, a poisonous gas, has a formula of CO. How many moles of carbon monoxide occupies a volume of 0.445 L at STP?
7. What is the pressure of 25.00 moles of methane at 50.0°C if it occupies a volume of 60.0L?