**Dougherty Valley HS AP Chemistry**

**WORKSHEET #4**

**Gas Laws – Combined Gas Law**

Name: Date: Period: Seat #:

In practical terms, it is often difficult to hold any of the variables constant. When there is a change in pressure,

volume and temperature, the combined gas law is used. We use the following formulas:

$$\frac{P\_{1}V\_{1}}{T\_{1}}= \frac{P\_{2}V\_{2}}{T\_{2}}; K=℃+273$$

**Complete the following chart. Show your work**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **P1** | **V1** | **T1** | **P2** | **V2** | **T2** |
| 1 | 1.50 atm | 3.00 L | 20.0° | 2.50 atm |  | 30.0°C |
|  |
| 2 | 720. torr | 256. mL | 25.0°C |  | 250. mL | 50.0°C |
|  |
| 3 | 600. mmHg | 2.50 L | 22.0°C | 760. mmHg | 1.80 L |  |
|  |
| 4 |  | 750. mL | 0.00°C | 2.00 atm | 500. mL | 25.0°C |
|  |
| 5 | 95.0 kPa | 4.00 L |  | 101. kPa | 6.00 L | 198. °C |
|  |