**District 6 Answer Key**

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| **6.1 Answer Key** | **6.2 Answer Key** |
| 1. 3.33 atm  2. 0.732 atm  3. 8 atm  4. Standard temperature = 273 K and standard pressure = 1 atm, so we use standard pressure in Boyle’s Law to solve this problem.  Pf = 2 atm  5. 2.5 atm  6. 0.47 L  7. 20,267 L  8. 0.285 L  9. You need to use PV = nRT for this problem.  R = 0.082, so the final answer is:  T = 1976 K | 1. A  2. C  3. (a) 303 K (b) 158 K  4. T2/T1 = V2/V1  T2 = T1V2/V1  = (429 K)(250 ~~ml~~)/390 ~~ml~~  = **275 K.**  5. V2/V1 = T2/T1  V2 = V1T2/T1 = (50 ml)(296 ~~K~~)/250 ~~K~~ = **59.2 ml**  6. V2/V1 = P1/P2  V2 = V1P1/P2 = (2,000 ml)(760 ~~mm~~)/740 ~~mm~~ =  **2,054 ml.**  7. 26.7 L  8. 8.46 L  9. Standard Temperature = 0 oC or 273 K  Pf=0.313 atm |