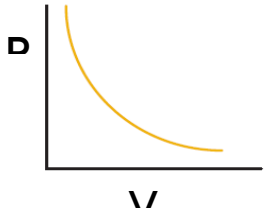
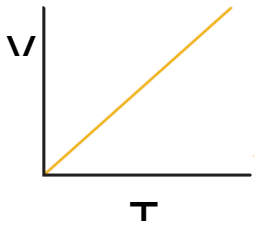
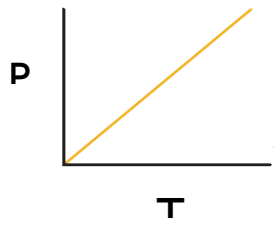
Questions

1. $P_1V_1 = P_2V_2$
2. 9 atm
3. $V_1/T_1 = V_2/T_2$
4. 6.26 L
5. $P_1V_1/T_1 = P_2V_2/T_2$
6. 1.74 L
7. 0.64 moles → 2.56 g

Theoretical Questions

1. 

2. . 

3. . 

4. Increasing the pressure will allow a higher cooking temperature. At high altitudes, where pressure is lower, cooking temperatures will be lower as pressure and temperature have a directly proportional relationship.

Bonus Questions

1. 4.66 atm
2. 116.47 L
3. 52.21 L

Solutions to the problems

1. T_1=182.9 K; V_2 = 30 L
2. n = 2.3 mol. $1.4x10^{23}$ molecules (the answer in the previous sheet was

incorrect)

3. 22.4 L
4. 1 atm
5. a) 24.4 K, b) 2.08 L, c) 2.45 atm, d) 250 K
6. 0.85 g
7. 0.05 atm and 488 K
8. 1.96 g/L
9. 28 g/mol