Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 7I – *Combined Gas Law* 20 Points

Complete the following problems based on the Combined Gas Law

Combined Gas Law

Combined Gas Law Forms	$P_1 = \frac{P_2V_2T_1}{V_1T_2}$ $V_1 = \frac{P_2V_2T_1}{P_1T_2}$ $T_1 = \frac{P_1V_1T_2}{P_2V_2}$
$P_1V_1T_2 = P_2V_2T_1$	$P_2 = \frac{P_1V_1T_2}{V_2T_1}$ $V_2 = \frac{P_1V_1T_2}{P_2T_1}$ $T_2 = \frac{P_2V_2T_1}{P_1V_1}$

$V_1 = \frac{P_2V_2T_1}{P_1T_2}$

5.50 X
2.63 X
447.39 =
÷ 3.08
X 347.11 =

V_1 = ____L, P_1 = 3.08atm T_1 = 447.39K
V_2 = 2.63L, P_2 = 5.50atm T_2 = 347.11K

$V_1 = \frac{5.50\text{atm} \cdot 2.63\text{L} \cdot 447.39\text{K}}{3.08\text{atm} \cdot 347.11\text{K}}$

V_1 = 6.05 L ~~729325.03~~

V_1 = 6.53L, P_1 = 7.89atm T_1 = ____K
V_2 = 3.58L, P_2 = 4.78atm T_2 = 283.73K

T_1 =

T_1 =

V_1 = 4.10L, P_1 = ____atm T_1 = 683.24K
V_2 = 3.36L, P_2 = 3.54atm T_2 = 950.17K

P_1 =

P_1 =

V_1 = 7.84L, P_1 = 6.48atm T_1 = 199.21K
V_2 = 5.88L, P_2 = 9.05atm T_2 = ____K

T_2 =

T_2 =

V_1 = 8.03L, P_1 = 6.34atm T_1 = 904.7K
V_2 = ____L, P_2 = 4.28atm T_2 = 382.37K

V_2 =

V_2 =

V_1 = 6.38L, P_1 = 3.06atm T_1 = 306.19K
V_2 = 2.65L, P_2 = ____atm T_2 = 580.93K

P_2 =

P_2 =