Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 6G – *Charles' and Gay-Lussac's Law* 20 Points

Complete the following problems based on Charles' and Gay-Lussac's Law

Charles ($V_1T_2 = V_2T_1$) *and Gay-Lussac's Law Forms* ($P_1T_2 = P_2T_1$)

Charles' Law Forms							
$V_1T_2 = V_2T_1$	$V_1 = \frac{V_2T_1}{T_2}$	$T_1 = \frac{V_1T_2}{V_2}$	$V_2 = \frac{V_1T_2}{T_1}$	$T_2 = \frac{V_2T_1}{V_1}$

Gay-Lussac's Law Forms							
$P_1T_2 = P_2T_1$	$P_1 = \frac{P_2T_1}{T_2}$	$T_1 = \frac{P_1T_2}{P_2}$	$P_2 = \frac{P_1T_2}{T_1}$	$T_2 = \frac{P_2T_1}{P_1}$

$V_1 = 9.54L$, $T_1 =$ ____K
$V_2 = 7.45L$, $T_2 = 472.4K$

$T_1 =$

$T_1 =$

$V_1 =$ ____L, $T_1 = 134.49K$
$V_2 = 81.34L$, $T_2 = 374.12K$

$V_1 =$

$V_! =$

$V_1 = 15.12L$, $T_1 = 401.10K$
$V_2 =$ ___L, $T_2 = 509.28K$

$V_2 =$

$V_2 =$

$V_1 = 4.93L$, $T_1 = 382.45K$
$V_2 = 12.43L$, $T_2 =$ ____K

$T_2 =$

$T_2 =$

$P_1 = 3.88atm$, $T_1 = 606.42K$
$P_2 = 8.91atm$, $T_2 =$ ____K

$T_2 =$

$T_2 =$

$P_1 = 13.18atm$, $T_1 = 522.99K$
$P_2 =$ ____atm, $T_2 = 744.28K$

$P_2 =$

$P_2 =$

$P_1 = 5.38atm$, $T_1 =$ ____K
$P_2 = 6.84atm$, $T_2 = 643.58K$

$T_1 =$	
$T_! =$	

$P_1 = 3.82atm$, $T_1 = 213.38K$
$P_2 =$ ____atm, $T_2 = 431.38K$

$P_2 =$	
$P_2 =$	

$P_1 = 4.88atm$, $V_1 =$ ____L
$P_2 = 7.86atm$, $V_2 = 68.33L$

$V_1 =$	
$V_1 =$	

$P_1 = 5.62atm$, $V_1 = 60.38L$
$P_2 =$ ____atm, $V_2 = 34.31L$

$P_2 =$	
$P_2 =$	