

Numerical Answers to Tutorial Sheet 6

- 1 (a) (i) $+7.3\text{kJmol}^{-1}$
(ii) 2.71kJmol^{-1}
(b) (i) -0.55kJmol^{-1}
(ii) -0.93kJmol^{-1}
- 2 (a) (i) 886.8cm^3
(ii) 56.3cm^3
(b) (i) $6.4 \times 10^3\text{ kPa}$
(ii) $1.3 \times 10^3\text{ kPa}$
(c) (i) -0.35kJ
(ii) $+1.2\text{JK}^{-1}$
(iii) -17.3J
(iv) $+6.34 \times 10^{-2}\text{JK}^{-1}$
(d) (i) $+4.7\text{JK}^{-1}\text{mol}^{-1}$
(e) (i) -3.43kJ
 $+11.5\text{JK}^{-1}$
0
(ii) (a) 1
(b) 0.8600
(f) 0.93
1.25
1.25
(g) 32.2 Torr (CCl_4)
6.1 Torr (Br_2)
38.3 Torr (tot)

0.841 (CCl_4)
0.16 (Br_2)
(h) 0.668
1.25
1.11
(i) (b) $K_A = 450\text{ Torr}$
 $K_I = 465\text{ Torr}$