**Answers**

1. **C**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | *V*(cm3) | *T* °C | *T* (°new scale) |
|  | 1.2 | -40 | -40 +140 = 100°C |
|  | 1.7 | 0 | 0 +140 = 140 °C |
|  | 2.2 | 40 | 40°C+ 140°C =180°C |
|  | 2.7 | 80 | 80°C + 140°C = 220 °C |

1. **23.19 L**
2. **B**
3. **5.09 L**
4. **10.1 kPaL/Kmol**
5. **Final Temp = 392.2 K Temp change = 94 K**
6. **2.44L**
7. **B**
8. **4.43 g/L**
9. **33.4 inches H2O L**

 **K mol**

1. **a) Px = 400 KPA**

 **Py = 100 KPA**

**b) Px = 123 KPA**

**Py = 69.2 KPA**

 **c) 94.6 kPa**

1. **A**