

CHEM 3530
Chapters 1 - Homework Answers

- 1.1 (a) 18.5 g
(b) 6.86×10^{24} atoms
- 1.2 (a) 2.9 g
(b) 5.0×10^{22} molecules
- 1.3 32.0 torr
- 1.4 2.5×10^{-3} mol
- 1.5 418 kPa
- 1.6 -243.5 °C
- 1.7 (a) 3.65 m³
(b) 178 m³
- 1.8 3.2 kPa
- 1.9 0.95 L
- 1.10 16.3 g/mol
- 1.11 (a) $P(\text{He}) = 256$ kPa $P(\text{Ar}) = 144$ kPa
(b) $c(\text{He}) = 0.095$ mol/L $c(\text{Ar}) = 0.054$ mol/L
- 1.12 16. g/mol
- 1.13 (a) 1930 m/s
(b) 1150 m/s