

Mole-to-Mole Conversions Answer Key

Molar Ratios

- | | |
|---|---|
| a) 1 mol C ₂ H ₅ OH | e) 12 mol O ₂ |
| b) 3 mol H ₂ O | f) 0.7 mol C ₂ H ₅ OH |
| c) 3 mol O ₂ | g) 2 mol O ₂ |
| d) 2 mol CO ₂ | h) 0.5 mol C ₂ H ₅ OH |

Mole-to-Mole Conversion

	Nitrogen	+	Hydrogen	→	Ammonia (NH ₃)
Equation:	N₂	+	3 H₂	→	2 NH₃
Moles:	4.62 mol	+	13.8 mol	→	9.24 mol

	Magnesium	+	Oxygen	→	Magnesium oxide
Equation:	2 Mg	+	O₂	→	2 MgO
Moles:	4.62 mol	+	2.31 mol	→	4.62 mol

	Sodium	+	Water	→	Sodium hydroxide	+	Hydrogen
Equation:	2 Na	+	2 H₂O	→	2 NaOH	+	H ₂
Moles	0.7291 mol	+	0.7291 mol	→	0.7291 mol	+	0.3645 mol

- 1 mol Fe
- 2 mol HCl
- 3 mol KMnO₄
- 1.0 mol KMnO₄
- 4 mol KMnO₄
- 0.3 mol FeCl₂
- 0.5 mol HCl
- 2.6 x 10⁻³ mol MnCl₂
- 0.0850 mol H₂O or 8.50 x 10⁻² mol H₂O