

Moles Conversions

Name _____

Show all work (you don't need to show calculation of molar mass, just conversion), and make sure every number has a unit!

- 1) Convert 25.0 g of H_2O to moles.
- 2) Convert 4.30 moles of MgCl_2 to grams.
- 3) Convert 3.2 moles of $\text{Fe}_2(\text{SO}_4)_3$ to grams.
- 4) Convert 2.0L of 3.5 M NaOH to moles of NaOH.
- 5) Convert 123.46 g of $(\text{NH}_4)_2\text{CO}_3$ to moles.
- 6) What volume of 1.50 M HCl would you need if you wanted 0.65 mols of HCL?
- 7) How many grams of sodium sulfate are dissolved in 450.0 mL of a 6.0 M sodium sulfate solution?
- 8) How many moles of chloride ions are dissolved in 250.0 mL of 0.525 M calcium chloride solution?

Answers:

- 1) 1.39 mol
- 2) 409 g
- 3) 1300 g or 1.3×10^3 g
- 4) 7.0 mol
- 5) 1.285 mol
- 6) 0.43 L
- 7) 380 g
- 8) 0.263 mol