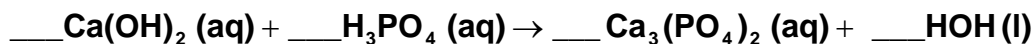
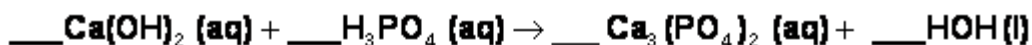


General Chemistry
Mr. MacGillivray
Teach Yourself Solution Stoichiometry!



PROBLEM: What volume of 0.250 M phosphoric acid (H₃PO₄) is required to neutralize 35.2 ml of 0.338 M calcium hydroxide, Ca(OH)₂?

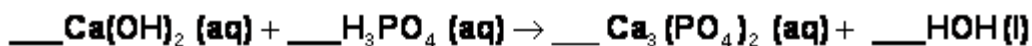
1. Balance the equation above.
2. Fill in the blanks to set up your knowns and unknowns.



ml ml

$\frac{\text{mol}}{\text{L}}$ $\frac{\text{mol}}{\text{L}}$

3. Find the number of moles of calcium hydroxide. Use $M=n/V$. Show calculations. Units have to cancel, so use liters! Fill in the answer in the "mol" box under Ca(OH)₂.



ml ml

$\frac{\text{mol}}{\text{L}}$ $\frac{\text{mol}}{\text{L}}$

mol mol

4. Convert from mol of calcium hydroxide to moles of phosphoric acid. Show your calculations. Fill in the answer above in the "mol" box under phosphoric acid.
5. Use $M=n/V$ to find the number of liters of H₃PO₄. Convert to ml and fill in the answer ☺!

6. Repeat the above procedure for the following problem: How many ml of a 0.312 M solution of Pb(NO₃)₂ are needed to react completely with 75.0 ml of 0.500 M NaI?

