

Do Now

- Hand in your lab from yesterday if you have not done so.
- Get a whiteboard.
- Write down the type of problem that you would like to reviewed the most.

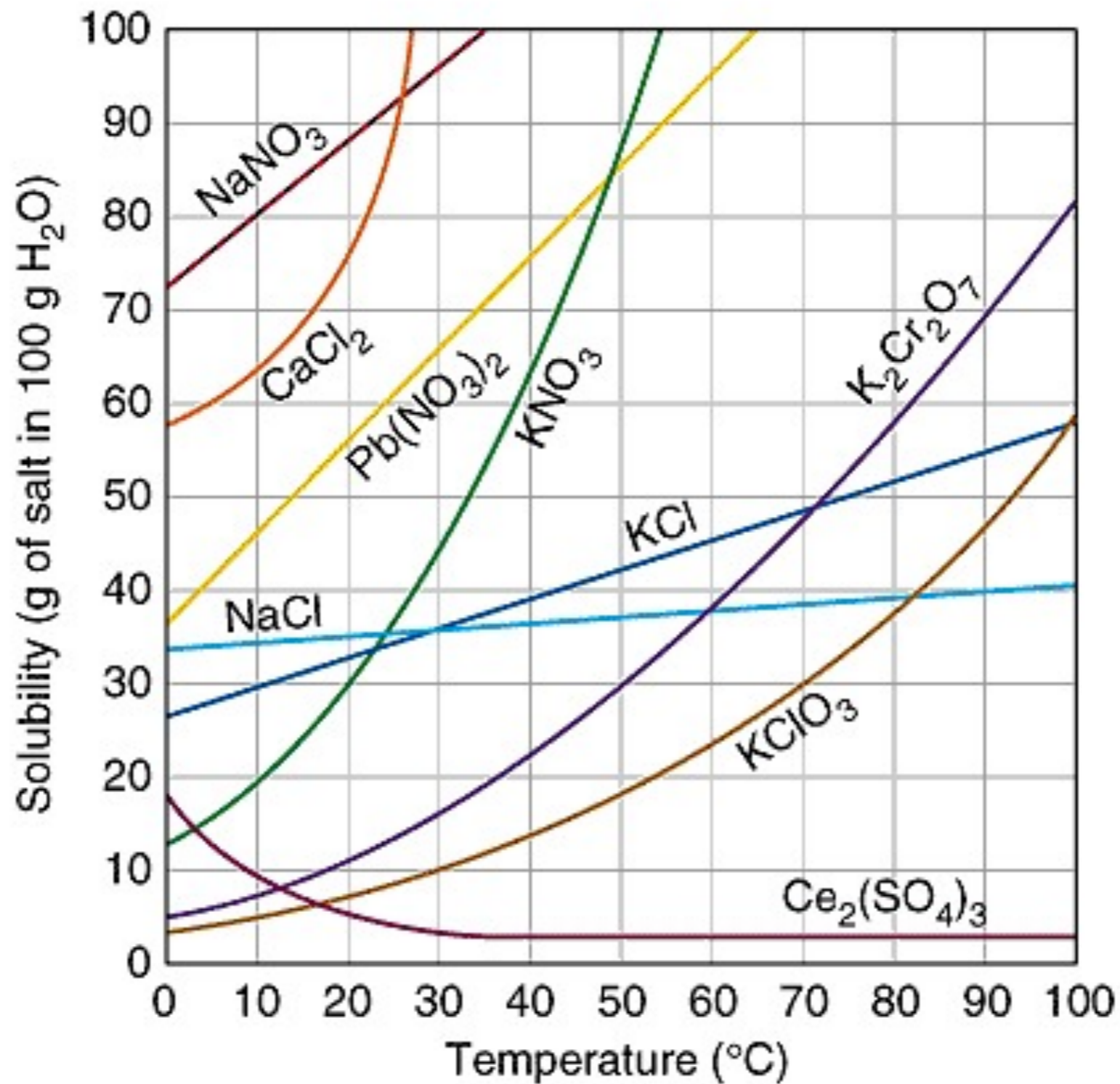
Quiz Tomorrow

- Calculating pH and pOH
- Neutralization Reactions
- Solubility Charts

Cola has a pH of 2.6 (really). What is the concentration of H^+ ions? What is the pOH of Cola? Acid or Base?

A substance has a concentration of hydroxide ions of 4×10^{-3} . Determine the concentration of H^+ ions. A or B?

What's a stronger base: 0.05M calcium hydroxide or 0.05M sodium hydroxide?
Determine the pH of each.



<http://www.sciencegeek.net/Chemistry/taters/solubility.htm>

Neutralization Reactions

- Balance the equation always makes water and a salt.
- Calculate the moles of the given H^+ or OH^- . You need the same amount of the other to neutralize.
- Use the ratio of subscripts to determine the number of moles of the unknown substance.
- Solve for the unknown.

How many mL's of 0.22 M CsOH solution is needed to neutralize 26.4 mL of 0.250 M HBr?

In a titration of HNO_3 with NaOH , 60.0 mL of 0.020 M NaOH was needed to neutralize 15.0 mL of HNO_3 . What is the molarity of the acid? (Write the neutralization reaction.)

Normal vinegar is about 1.0 mol/L acetic acid.

A sample of vinegar is suspected to be diluted. A 10.0 mL sample of the vinegar was titrated to an endpoint with 0.0100 mol/L $\text{Ca}(\text{OH})_2$ from a burette. The following data was recorded:

initial burette reading = 0.40 mL

final burette reading = 25.40 mL

- a) Calculate the concentration in mol/L of acetic acid ($\text{HC}_2\text{H}_3\text{O}_2$) in the vinegar.
- b) Was the vinegar diluted?



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