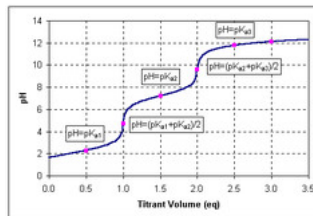
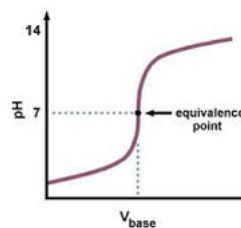




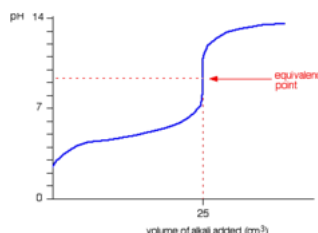
1. **What is the name of the point of the curve where $\text{pH} = \text{pKa}$?** Halfway point



2. **At what point will $[\text{H}] = [\text{OH}]$?** Equivalence point



3. **If a weak acid is titrated with a strong base**



4. **What is the definition of a Buffer ?** A solution which contains a weak acid (or weak base) and its conjugate base (or acid)

5. **Given a titration curve, determine the K_a of the acid** anti-log of the negative value of the solution's pH at the halfway point

6. **Why does the titration of a weak acid with a strong base have an equivalence point that is greater than 7?** the acid's conjugate base makes the solution basic

7. **What is the definition of the equivalence point?** The spot on the titration curve where moles of acid = the mole of base . The pH at this point is not necessarily 7

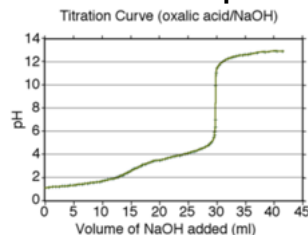
8. **Which indicators would be the most useful when titrating** Pink phenolphthalein or thymol blue. Both change colors at pH's between 7.6 and 9. These are the values between which the equivalence



a weak acid with a strong base?

9. **Given an unmarked titration curve, how would you identify the equivalence point?**

Isolate the section of the curve where the slope is steepest. Look for the center point



10. **arrhenius acid**

they are the acids that dissociate in water to produce H^+ ions

11. **arrhenius base**

they are the bases that dissociate in water to produce OH^- ions

12. **bronsted-lowery acid**

acids that are proton donors
they are willing to give up H^+
t

13. **bronsted-lowry base**

bases that are proton(H^+) acceptors

14. **conjugate base**

what the acid becomes once the proton(H^+) has been donated

15. **conjugate acid**

what the base becomes after it accepts the proton(H^+)

16. **strong acids**

HNO_3
 HI
 HBr
 HCl
 H_2SO_4
 $HClO_4$

17. **what defines a strong acid**

they completely(100%) dissociate in water

18.



AP Chem Chapter 14-15 Titration, Acids and Bases 2021

Study online at https://quizlet.com/_4ria1i

what defines a weak acid	acids that only partially dissociate has a relatively strong conjugate base
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19. strong bases	soluble compounds containing the hydroxide ions NaOH KOH LiOH RbOH Mg(OH) ₂ Ba(OH) ₂ Ca(OH) ₂ Sr(OH) ₂
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20. How # of oxygens on oxyacids affects acid strength	acid strength increases as more oxygens are added to the central Y increasing the number of electronegative oxygen atoms increases the electrons attraction toward the Y. This will reduce the forces of attraction in the O-H bond making it easier to remove a H ⁺
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21. K_w	1.0×10^{-14} at 25 degrees Celsius
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22. how to find pH when given [H₃O⁺]	$\text{pH} = -\log[\text{H}_3\text{O}^+]$
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23. how to find pOH when given [OH⁻]	$\text{pOH} = -\log[\text{OH}^-]$
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24. how to find the pH when given the pOH	$14 - \text{pOH}$
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25. how to find pOH when given the pH	$14 - \text{pH}$
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26. neutral	$[\text{H}^+] = [\text{OH}^-]$
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27. larger K_a value means what	stronger acid because the acid is going more into completion
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28.	$\text{H}^+ + \text{OH}^- \rightarrow \text{H}_2\text{O}$
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neutralization SA + SB reaction net ionic equation

29. hydrolysis

states that salts (ionic compounds) can make a solution acidic, basic, or even have no effect on the pH
