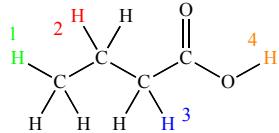


Chapter 19 Jeopardy Review Game

	Value	Question	Answer
Properties	200	How do acids taste?	
	400	Do bases feel slippery, rough, fuzzy, or cold?	
	600	Acids and bases are both what, meaning they conduct electricity?	
	800	Which compound(s) are corrosive to skin?	
	1000	When acids react with metals, what gas is evolved?	
Models	200	In the Arrhenius model, what do bases produce in aqueous solutions?	
	400	In the Brønsted model, what do acids donate?	
	600	What is the conjugate base of H_2PO_4^- ?	
	800	In the reaction, $\text{CO}_3^{2-}(\text{aq}) + \text{HSO}_4^-(\text{aq}) \rightleftharpoons \text{HCO}_3^-(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$, which species is the conjugate acid?	
	1000	When $\text{HClO}_2(\text{aq})$ reacts with $\text{CH}_3\text{NH}_2(\text{aq})$, $\text{HClO}_2(\text{aq}) + \text{CH}_3\text{NH}_2(\text{aq}) \rightleftharpoons ?$, what is the conjugate base produced, including charge?	
Strengths	200	To what extent, or percentage, do strong acids dissociate or ionize?	
	400	As the acid ionization constant, K_a , decreases, what happens to acid strength?	
	600	Which is a stronger base: methylamine, CH_3NH_2 ($K_b = 4.3 \times 10^{-4}$) or aniline, $\text{C}_6\text{H}_5\text{NH}_2$ ($K_b = 4.3 \times 10^{-10}$)?	
	800	Which would conduct electricity better, a 0.1 M solution of $\text{HC}_2\text{H}_3\text{O}_2$ ($K_a = 1.8 \times 10^{-5}$) or a 0.1 M solution of HNO_2 ($K_a = 4.6 \times 10^{-4}$)?	
	1000	Which is stronger: the O–H bond in a weak acid or in a strong acid?	
pH	200	The pH scale generally includes what range of values?	
	400	Is a solution with $\text{pH} = 5$ acidic, basic, or neutral?	
	600	What is the pH of a solution with $\text{pOH} = 2$?	
	800	What value does the product $[\text{H}^+][\text{OH}^-]$ have at 25°C ?	
	1000	Which solution has a lower pH: a 0.1 M solution of HCl (K_a very large) or a 0.1 M solution of $\text{HC}_3\text{H}_5\text{O}_2$, propionic acid ($K_a = 1.4 \times 10^{-5}$)?	
Neutralization	200	When acids and bases are neutralized, what two kinds of products are formed?	
	400	What is true of the number of H^+ and OH^- ions when neutralized?	
	600	What is the procedure used to determine the concentration of an unknown solution?	
	800	During titration of a weak acid with a strong base, will the pH at the equivalence point be acidic (<7), neutral ($=7$), or basic (>7)?	
	1000	How many water molecules would be formed in the balanced neutralization equation of $\text{Al}(\text{OH})_3$ with HCl to form AlCl_3 and H_2O ?	
Potpourri	200	What is the name for HCl ?	
	400	What is the pH of a 1.0×10^{-3} M solution of HBr , a strong acid?	
	600	What are compounds that can act as both acids and bases called?	
	800	In the article, "Acid Rain," oxides of what two elements are responsible for the formation of acid rain?	
	1000	Identify the acidic H in the diagram below:	

Final Jeopardy Category: Equilibrium Calculations

 What is the concentration of a solution of H_2SO_4 if 10.0 mL requires 40.0 mL of 0.20 M NaOH to neutralize?