types of acid/base problems involving monoprotic acids or bases

type of problem		video
pure water		(3)*
strong acid		(1)*, (1)-(2)**
strong base		(4)*
weak acid		(5)*, (5) (5)-(6)**
weak base		(6)*
weak conjugate acid and weak conjugate base		(7)-(9)*, (4)***
strong acid and strong base	less base than acid	(10)-(11)*, (2)-(3)**
	equal amounts of acid and base	(12)*, (4)**
	more base than acid	(13)*, (4)-(5)**
weak acid and strong base	less base than acid	(16)*, (6)-(7)**
	equal amounts of acid and base	(17)-(18)*, (7)-(8)**
	more base than acid	(9)-(10)**
strong acid and weak base	less acid than base	(15)*
	equal amounts of acid and base	
	more acid than base	
weak conjugate acid and weak conjugate base, plus strong acid	less strong acid than weak base	(2)-(3)***
	equal amounts of strong acid and weak base	
	more strong acid than weak base	
weak conjugate acid and weak conjugate base, plus strong base	less strong base than weak acid	(4)-(6)***
	equal amounts of strong base and weak acid	
	more strong base than weak acid	

*Acids and bases. Calculating pH. Titrations **Calculating pH for acid-base titrations
***Buffers. The Henderson-Hasselbach equation

types of acid/base problems involving polyprotic acids

strong diprotic acid (H_2SO_4) and strong base	no base added
	before 1st equivalence point
	at 1st equivalence point
	between 1st and 2nd equivalence points
	at 2nd equivalence point
	beyond 2nd equivalence point
weak diprotic acid and strong base	no base added
	before 1st equivalence point
	at 1st equivalence point
	between 1st and 2nd equivalence point
	at 2nd equivalence point
	beyond 2nd equivalence point
weak triprotic acid and strong base	no base added
	before 1st equivalence point
	at 1st equivalence point
	between 1st and 2nd equivalence points
	at 2nd equivalence point
	between 2nd and 3rd equivalence points
	beyond 3rd equivalence point