

1. H_2SO_4 sulfuric acid
 HCl hydrochloric acid
 $HClO_4$ perchloric acid
 HBr hydrobromic acid
 HI hydroiodic acid
 HNO_3 nitric acid

2 I

Potassium hydrogen
phthalate

KHP

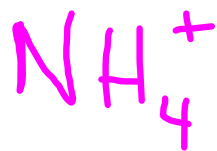
Salts metal to nonmetal
wo/ an H^+

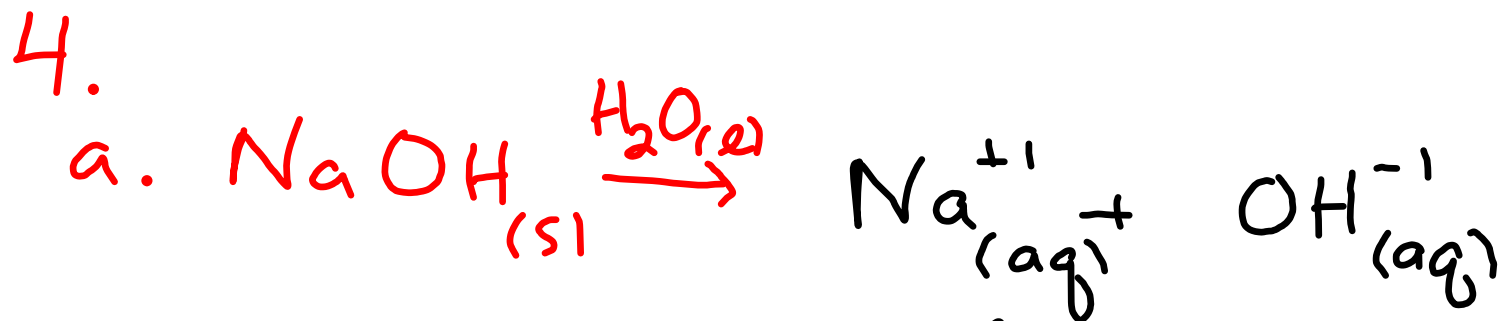
wo/ OH^-

ionic bonds

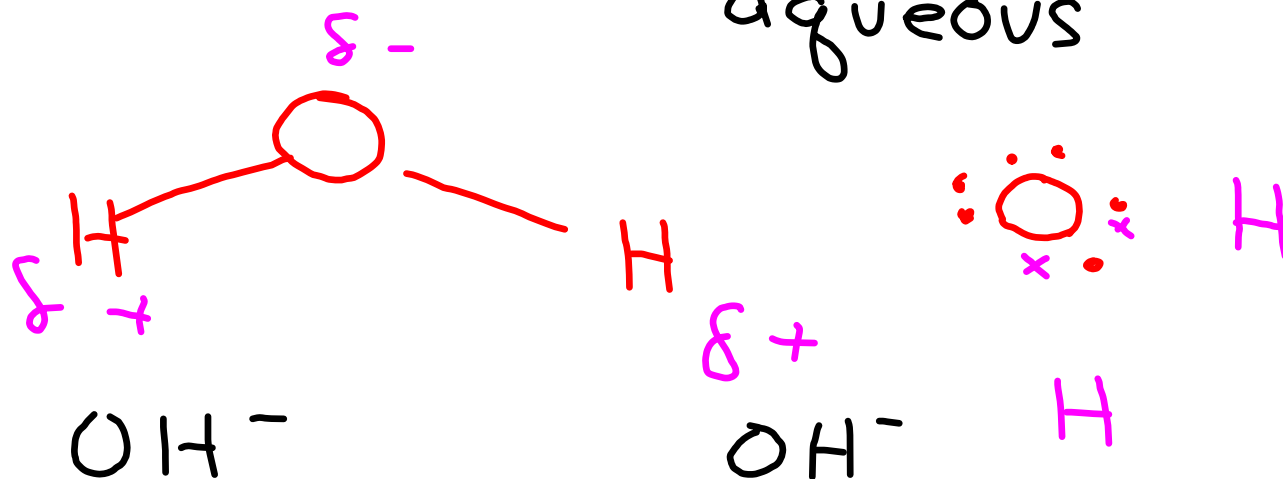
acid contains H^+ H_2S

bases contains OH^-

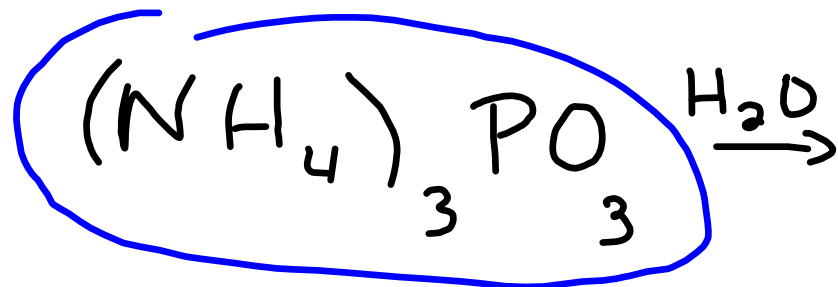




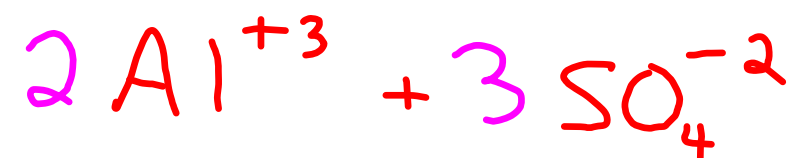
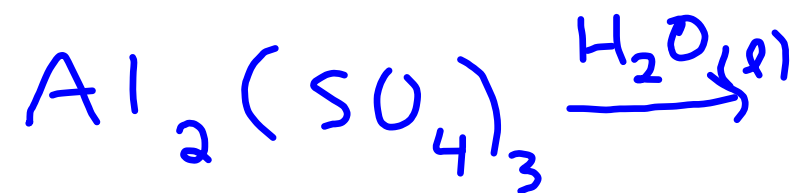
↑
 aqueous



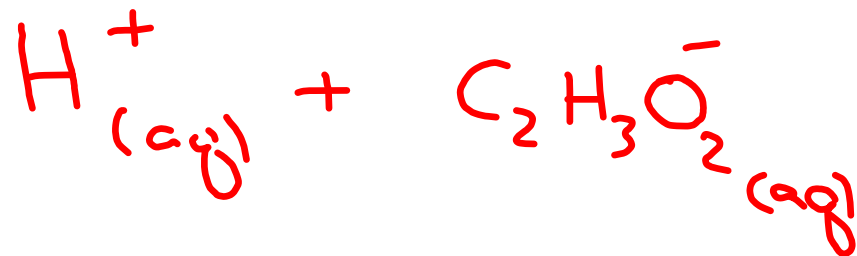
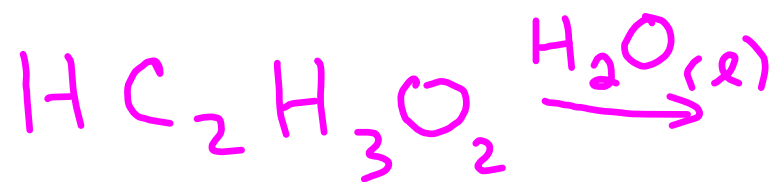
4 h.



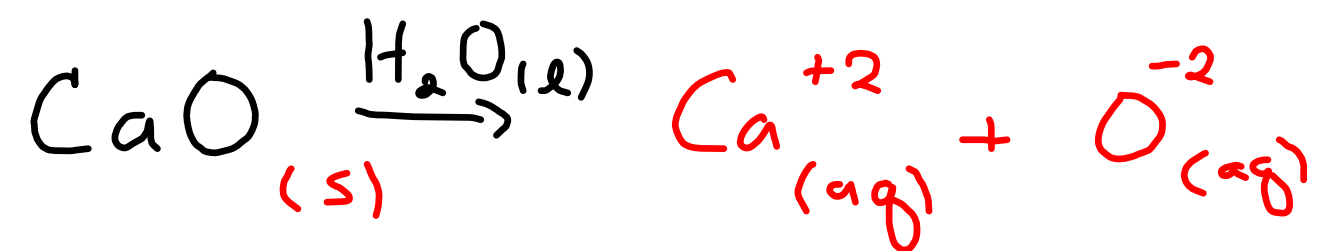
4i



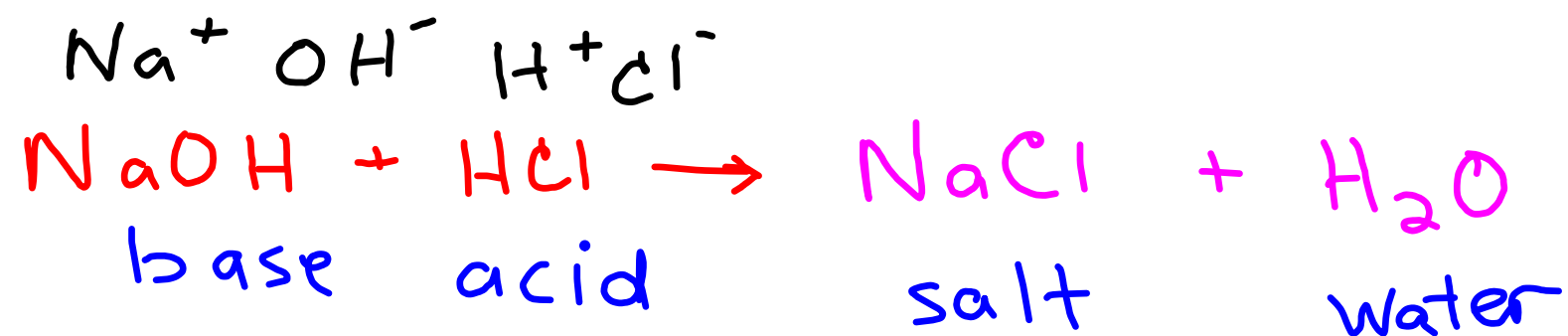
4. l.



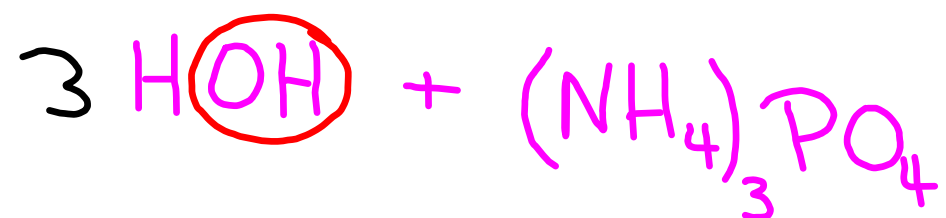
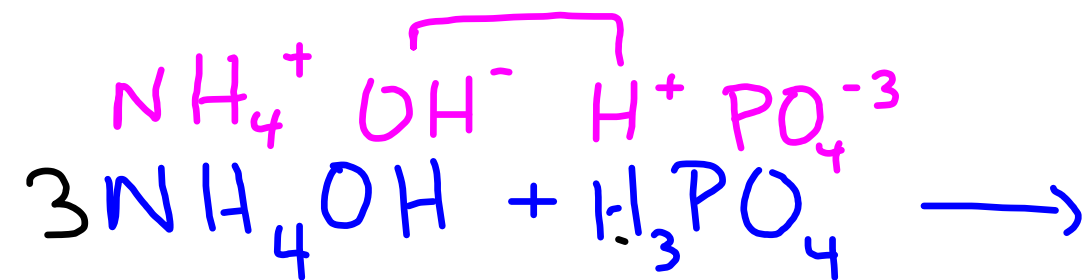
4/e.



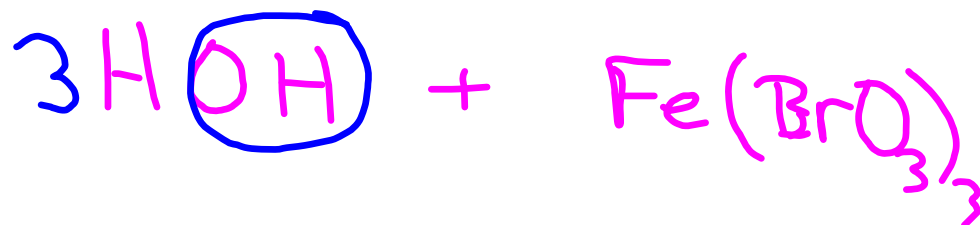
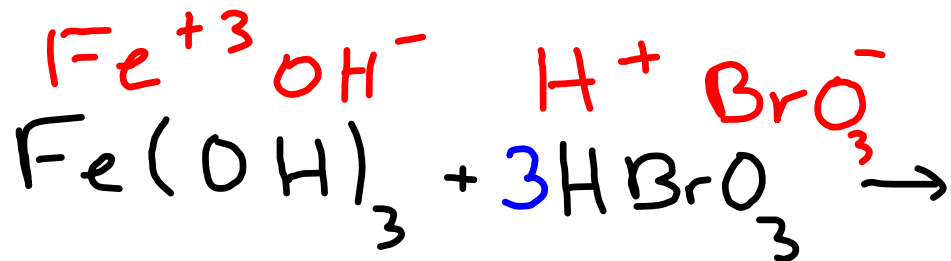
5. a



5 e.



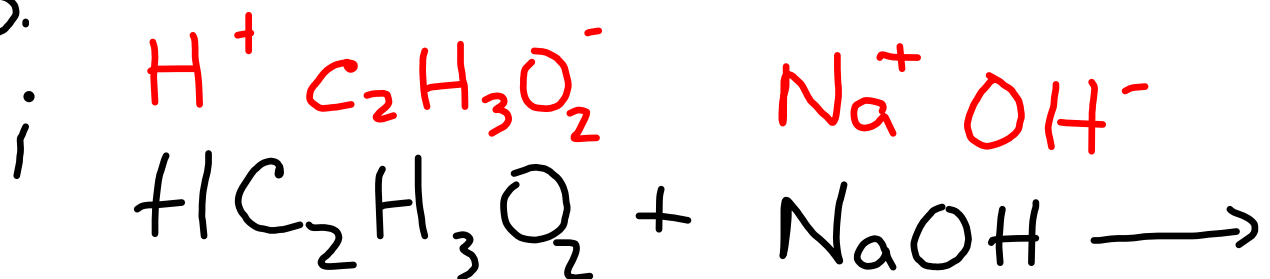
5 k



1) .052 M

2) .0087 M

5.



$\log$
 10^x anti log

$$pH + pOH = 14$$

$$-\log[H^+] = pH$$

$$-\log[OH^-] = pOH$$

$$10^{-pOH} = [OH^-]$$

$$10^{-pH} = [H^+]$$

6 a.	$[H^+]_4$	$[OH^-]$	pOH	pH
	3.2×10^{-4}	3.1×10^{-11}	10.51	3.49

$$\log[3.2 \times 10^{-4}]$$

Sig figs always one more for pH and pOH.

after the decimal.

pH scale

0

6.9 7 7.1

14

acid

neutral

base

One less than the exponent

6 a. $[H^+] = 3.2 \times 10^{-4}$ $[OH^-] = 3.1 \times 10^{-11}$ $pOH = 10.5$ $pH = 3.49$

-15

$[H^+] = 1 \times 10^{-3}$ $[OH^-] = 1 \times 10^{-11}$ $pOH = 11$ $pH = 3.0$

$1 \times 10^{-7} [H^+] - 14$
 $1 \times 10^{-7} [OH^-]$

6.

c

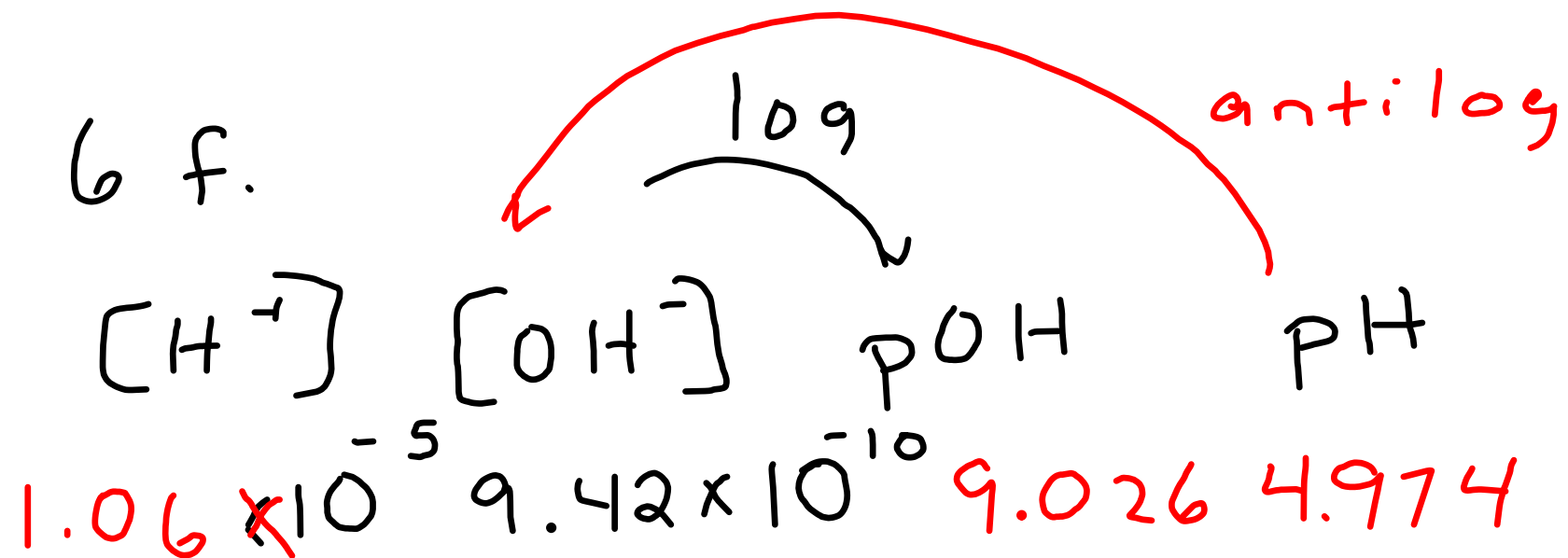
$[H^+]$

$[OH^-]$

pOH

pH

2.6×10^{-11} 3.8×10^{-4} 3.42 10.58



2 Naming

5 acid/base pairs