$HCl + KOH \rightarrow KCl + H_2O$

A + B → salt + Water

SA SB neutral

$2HCl + Fe(OH)_2 \rightarrow FeCl_2 + 2H_2O$

SA WB Acidic salt

2H OH

Oct 3-8:04 AM

Dilution (1 substance)

moles start = mole end

$M * l = M * l$

10*10
20*5
25*4
} = 100

Titration

Moles start = moles end

moles Acid = moles Base

$n_A * M_A * l_A = n_B * M_B * l_B$

H^+ coefficient of H^+

OH^- coeff of OH^-

M = Moles / l

Oct 3-8:26 AM

Equivalence Pt ⇒ moles Acid and Base equal

(Neutral)

End point ⇒ indicator changes color

Phenolphthalein dies at ≈ pH = 9

Oct 3-8:34 AM

25 ml 0.5 M HCl + 6 M NaOH

— ml to ? Neutralize.

Moles Acid = Moles Base

n M l = n M l

(1)(0.5)(25 ml) = (1)(6) ml

2.08 ml

Oct 3-8:36 AM

PS4
(20) ___ moles $BaCl_2$ (Next) 393 ml 0.171 M $Ba(OH)_2$ with HCl

$2HCl + Ba(OH)_2 \rightarrow BaCl_2 + 2HOH$

393 ml
0.171 M

moles = M * l
= (0.171)(0.393)
= 0.0672 mole $Ba(OH)_2$

___ moles
0.0672 mole

MOLE RATIO
0.1344 molar

Oct 3-8:41 AM

(PS4) (22) ___ l 0.25 M HNO_3 (Next) 17.5 g NaOH in 350 ml

moles Acid = mole Base
(HNO_3 = Acid, NaOH = Base)

n * M * l
(1)(0.25) l = 0.4375

1.75 l

17.5 g NaOH | 1 mole NaOH
40 g NaOH

Oct 3-8:50 AM

PS 23

200ml WaWa + 500ml 0.35M HCl START ⇒ ____ M

Dilution

Mdes start = Mde end.

M * ml = M * ml

(0.35)(500ml) = M * 700ml

0.25M Pah tah !

Oct 3-8:56 AM

HEY KOOL-AID !

$C_6H_{12}O_6$ iYum !

Reg.

538g make 8 qts

1l = 1.057 qt

4th ridge up = 100ml

____ g Kool Aid

Oct 3-9:01 AM

$$\frac{\left|\frac{538\text{g } C_6H_{12}O_6}{8\text{g}}\right|\left|\frac{1.05\text{g}}{1000\text{mL}}\right|\left|\frac{100\text{mL}}{}\right|}{} = 7.11\text{g } C_6H_{12}O_6$$

HW - Finish Exam 1 and EC (odd)

Oct 3-9:11 AM