Strong Acid   +   Strong Base

0.1 M HCl   0.1 M NaOH

25.0 mL   10.0 mL

2.5×10^{-3} mol - 1.0×10^{-3} mol $= 1.5 \times 10^{-3}$ mol

$V = 25 + 10$ mL

$[H^+] = \dfrac{1.5 \times 10^{-3} \text{ mol}}{35 \times 10^{-3} \text{ L}}$

$[H^+] = 4.28 \times 10^{-2}$ M

$pH = 1.37$

pH

10.0

5.0

0   10   20   30   40   50

volume NaOH added (mL)