Question 17: A 100 ml solution of 0.1N HCl was titrated with 0.2N NaOH solution. The titration was discontinued after adding 30 ml of NaOH solution. The remaining titration was completed by adding 0.25N KOH solution. The volume of KOH required for completing the titration is

ANSWER: Option 1

Total moles of H^+ = (100/1000)×0.1 = 10^{-2} moles

Moles of H^+ neutralized by NaOH = (30/1000) × 0.2 = $6×10^{-3}$ moles

Moles of H^+ remained after NaOH = $4×10^{-3}$ moles

$4×10^{-3}$ = (0.25) × V Litres of KOH

   V = $16×10^{-3}$ L

 answer   = 16ml of KOH