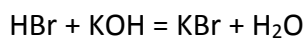# Answer on Question #63468 - Chemistry – General Chemistry
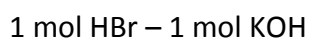
What volume of a 0.137 M potassium hydroxide solution is required to neutralize 27.9 mL of a 0.370 M hydrobromic acid solution?

Solution.

$HBr + KOH = KBr + H_2O$

V(HBr) = 0.0279 L
ν(HBr) = C(HBr)$\times$V(HBr) = 0.370$\times$0.0279 = 0.0103 mol

1 mol HBr – 1 mol KOH
0.0103 mol HBr – x mol KOH

x = 0.0103 mol KOH

V(KOH) = ν(KOH)/C(KOH) = 0.0103/0.137 = 0.0752 L = 75.2 mL

Answer: V(KOH) = 75.2 mL