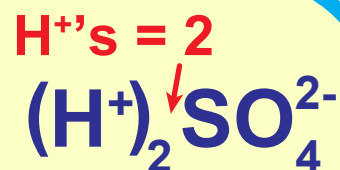
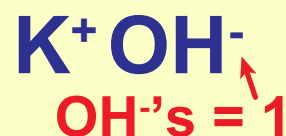


What volume of 0.53mol^{-1} Potassium Hydroxide is needed to neutralise 35.3cm^3 of 0.82mol^{-1} Sulfuric Acid?

Sulfuric Acid makes sulfates so needs 2 H^+ 's to balance the 2- on the SO_4^{2-} ion.



The potassium ion is just 1+ so only needs 1 OH^- to balance it's charge.



We are looking for the volume of alkali so write the OH^- first.

millimoles of OH^- = millimoles of H^+

vol x mol^{-1} x OH^- 's = vol x mol^{-1} x H^+ 's

$$\frac{x \times 0.53 \times 1}{0.53} = \frac{35.3 \times 0.82 \times 2}{0.53}$$

$$x = 109.2 \text{cm}^3$$