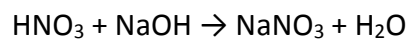


Answer on Question #50480, Chemistry, Other

What volume of 5.0 M HNO₃ is required to neutralize 2500 cm³ of a 2.0 M NaOH solution?

Solution:



$$\begin{aligned}n &= C \times V \\n(\text{HNO}_3) &= n(\text{NaOH}) \\C_1 \times V_1 &= C_2 \times V_2 \\V_2 &= \frac{C_1 \times V_1}{C_2} = \frac{2500 \text{ cm}^3 \times 2.0 \text{ M}}{5.0 \text{ M}} = 1000 \text{ cm}^3\end{aligned}$$

Answer:

1000 cm³ of HNO₃