## Answer on Question \#42323 - Chemistry - Inorganic Chemistry

## Question:

What quantity of 0.25 M HNO 3 can be neutralized by 0.10 liters of 0.50 M NaOH ?

## Solution:

The equation is:
$\mathrm{HNO}_{3}+\mathrm{NaOH}=\mathrm{NaNO}_{3}+\mathrm{H}_{2} \mathrm{O}$
0.1 liter of 0.50 M NaOH solution contains $0.1 * 0.5=0.05$ moles of NaOH

The quantity of $\mathrm{HNO}_{3}$ needed to neutralize NaOH is the same to the quantity of $\mathrm{NaOH}, 0.05$ moles.

The quantity of $\mathrm{HNO}_{3}$ solution needed is $\frac{0.05}{0.25}=0.2$ I
Answer: 0.2 liters

