## Answer on Question\#39837-Chemistry - Other

Question:
How many milliliters of 0.100 M HCl are needed to completely neutralize 52.0 mL of 0.110 M $\mathrm{Ba}(\mathrm{OH}) 2$ solution?

Solution:

$$
\mathrm{Ba}(\mathrm{OH})_{2}+2 \mathrm{HCl}=\mathrm{BaCl}_{2}+2 \mathrm{H}_{2} \mathrm{O}
$$

$\mathrm{n}\left(\mathrm{Ba}(\mathrm{OH})_{2}\right)($ mmole $)=52.0^{*} 0.110=5.72$;
$\mathrm{n}(\mathrm{HCl})(\mathrm{mmole})=2 * 5.72=11.44 ;$
$\mathrm{V}(\mathrm{HCl})(\mathrm{ml})=11.44 / 0.100=114.4 ;$

Answer: 114.4

