A storage tank with 3.8x10 (root of 5) liters of water is contaminated with sodium hydroxide and has a pH of 10.82. Calculate the volume of 0.10M hydrochloric acid required to be added to the tank in order to neurtralize the water.

Solution:

pOH = 14 – pH = 14 – 10,82 = 3,18

–

Equilibrium concentration :$[OH\ ]$ $\left({}^{mol}/_{l}\right)$

$n([OH\ ])$ ${}^{mol}/_{l}$ (mol)

$n([H^{+}])$ $n([OH\ ])$

$V(HCl)$ – $\frac{\qquad}{{}^{mol}/_{l}}$

Answer: **251 ml.**

Calculate the molar solubility of silver chromate in a 0.5M solution of the soluble salt potassium chromate.

Solution:

⇐

Solubility equilibrium (Ag)

$(2x)^{2}(x$ 5)

$\sqrt{0}$ $\left({}^{mol}/_{l}\right)$.

Answer: $\left(\boldsymbol{{}^{mol}/_{l}}\right)$.