TUTORIAL:

Reaksi-reaksi dalam Larutan Air

1. In a biochemical assay, a chemist needs to add 3.81 g of glucose to a reaction mixture. Calculate the volume in milliliters of a 2.53 M glucose solution she should use for the addition.

2. Describe how you would prepare 5.00×10^2 mL of a 1.75 M H_2SO_4 solution, starting with an 8.61 M stock solution of H_2SO_4.

3. A 0.5662 g sample of an ionic compound containing chloride ions and an unknown metal is dissolved in water and treated with an excess of $AgNO_3$.
If 1.0882 g of AgCl precipitate forms, what is the percent by mass of Cl in the original compound?

4. How many milliliters (mL) of a 0.610 M NaOH solution are needed to neutralize 20 mL of a 0.245 M H_2SO_4 solution?

5. A 16.42 mL volume of 0.1327 M $KMnO_4$ solution is needed to oxidize 25.00 mL of a $FeSO_4$ solution in an acidic medium. What is the concentration of the $FeSO_4$ solution in molarity? The net ionic equation is:

$5Fe^{2+} + MnO_4^- + 8H^+ \rightarrow Mn^{2+} + 5\,Fe^{3+} + 4H_2O$