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## Question 1

a) What mass of silver nitrate $\left(\mathrm{AgNO}_{3}\right)$ is required to make 250 mL of $0.100 \mathrm{molL}^{-1}$ solution?
b) What mass of sodium chloride $(\mathrm{NaCl})$ is required to make 1 L of $0.035 \mathrm{molL}^{-1}$ solution?

## Question 2

Calculate the concentration
a) 2.31 g of sodium carbonate in water and diluting to 250 mL
b) 46.2 g of sodium hydroxide in water and diluting to 2 L
c) 1.22 g of sodium hydrogencarbonate in water and diluting to 200 mL
d) 2.52 g of copper sulphate $\left(\mathrm{CuSO}_{4} \cdot 5 \mathrm{H}_{2} \mathrm{O}\right)$ in water and diluting to 100 mL

## Question 3

Copy and complete the following table

| Concentration <br> (molL $^{-1}$ ) | Volume | Amount (mol) |
| :---: | :---: | :---: |
| 0.1 |  | $2.57 \times 10^{-3}$ |
| 0.053 | 250 mL |  |
|  | 3 L | 2.732 |
| 0.457 |  | 0.256 |
| 0.107 | 20.7 mL |  |
|  | 0.0132 L | $5.27 \times 10^{-4}$ |

