Answer on Question #59254 – Chemistry – General Chemistry

sodium chloride decomposes into elemental sodium and elemental chlorine will be produced if 39.4 of sodium chloride decomposes

$$2NaCl \rightarrow 2Na + Cl_2 \uparrow$$

Molar mass of NaCl is 58.5 g, number of moles is $\frac{39.4}{58.5}=0.673$ moles. Number of moles for Na is 0.673, for Cl₂ – 0,337. Mass of Cl₂ is $0.337\times71=23.9$ g, mass of Na is 39.4-23.9=15.5 g.

Answer: Mass of Cl_2 - 23.9 g, mass of Na - 15.5 g.