Question 1- Thermo-decomposition of of calcium carbonate is

$$CaCO_3 \rightarrow CaO + CO_2$$

If 100 kg of calcium carbonate is heated what mass of calcium oxide will form? (Show all working)

Question 2- Iron oxide is reduced to iron by carbon monoxide according to the equation:

$$Fe_2O_3 + 3\ CO \rightarrow 2\ Fe + 3\ CO_2$$
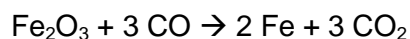
Calculate the mass of iron which could be obtained from 160 kg of iron oxide

Question 3- Zinc and iodine react to form zinc iodide, according to the equation:

$$Zn + I_2 \rightarrow ZnI_2$$
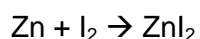
A student weighs out exactly 0.65 g of zinc and reacts it with excess iodine. What weight of zinc iodide would be formed