Question 1

Oxalic acid reacts with sodium hydroxide. The equation for the reaction is:
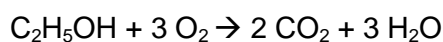
$$C_2H_2O_4 + 2NaOH \rightarrow C_2O_4Na_2 + 2H_2O$$
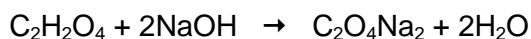
oxalic acid + sodium hydroxide → sodium oxalate + water

Calculate the **maximum mass** of sodium oxalate, $C_2O_4Na_2$, which could be made from 17.0g of sodium hydroxide.

$M(C) = 12.0$ g mol^{-1} $M(H) = 1.00$ g mol^{-1} $M(O) = 16.0$ g mol^{-1} $M(Na) = 23.0$ g mol^{-1}

Question 2

What mass of CO_2 is produced in the complete combustion of 34.5 g of ethanol according to the equation?

$$C_2H_5OH + 3 O_2 \rightarrow 2 CO_2 + 3 H_2O$$

$M(C) = 12.0$ g mol^{-1} $M(H) = 1.00$ g mol^{-1} $M(O) = 16.0$ g mol^{-1}