Answer on Question 77390 in General Chemistry

.m (Fe) =3.36 g

.m (O_2) =1.44 g

Fe_xO_y=?

Find the amount of substance

.n(Fe)=$\frac{m(Fe)}{Ar(Fe)}$=$\frac{3.36}{56}$=0.06 mol

.n(O_2)=$\frac{\mathrm{m}\ (O_2)}{\mathrm{Mr}(O_2)}$ =$\frac{1.44}{32}$=0.045 mol

Mr(O_2)=2× Ar(O)=2×16=32

.n(O)=2× n(O_2)=2×0.045=0.09 mol

.n(Fe): n(O)=0.06:0.09=2:3

The formula is Fe_2O_3