Mg+CO2=MgO+C

a] balance the equation

b] determine the relative mass of Magnesium

c]2.40 of Mg is reacted with CO2. Calculate:

i] number of moles of Mg in 2.40. Show working

ii]the mass of carbon produced

Answer:

a] balance the equation: **$2Mg+CO_2=2MgO+C$**;

b] the relative mass of Magnesium in these equation is: $2 \cdot Ar(Mg) = 2 \cdot 24 =$ **48 g**;

c]

i] the 24 g of Mg is 1 mole, so 2.4 g of Mg is **0.1 mole**;

ii] if react 2 mole of Mg 1 mole or 12 g of C will produce. So, if react 0.1 mole of Mg **0.6 g of C** will produce.