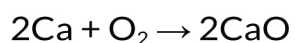


# GCSE MOLE CALCULATIONS WORKSHEET

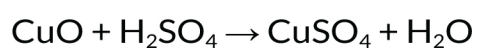
1) Complete the following table with the appropriate information.

Weight	Moles
10 g of Na	
2.3 g of Na	
15 g of C	
6 g of C	
20 g of Cu	
317.5 g of Cu	
5 g of Mg	
22 g of B	

2) How many grams of CaO would be needed to completely react with 12 g of O<sub>2</sub>?



3) How many grams of CuSO<sub>4</sub> could be made from 10g of CuO and an excess of H<sub>2</sub>SO<sub>4</sub>?



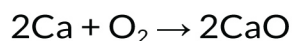
# GCSE MOLE CALCULATIONS WORKSHEET

## Answers

1) Complete the following table with the appropriate information.

Weight	Moles
10 g of Na	0.43
2.3 g of Na	0.1
15 g of C	1.25
6 g of C	0.5
20 g of Cu	0.31
317.5 g of Cu	5
5 g of Mg	0.21
22 g of B	2

2) How many grams of CaO would be needed to completely react with 12 g of O<sub>2</sub>?



Molar mass of O<sub>2</sub> = 32 g/mol

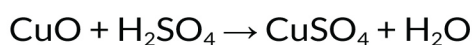
Molar mass of CaO = 56 g/mol

Moles of O<sub>2</sub> = Mass/Molar mass = 12/32 = 0.375 moles

Moles of CaO = 2 x moles of O<sub>2</sub> = 2 x 0.38 = 0.76

Mass of CaO needed in this reaction = 0.76 x 56 = 42.56 grams

3) How many grams of CuSO<sub>4</sub> could be made from 10g of CuO and an excess of H<sub>2</sub>SO<sub>4</sub>?



Molar mass of CuO = 79.5 g/mol

Molar mass of CuSO<sub>4</sub> = 159.5 g/mol

Moles of CuO = 10/79.5 = 0.13 = Moles of CuSO<sub>4</sub>

Mass of CuSO<sub>4</sub> = 0.13 x 159.5 = 20.7 grams