

UNIT 7 - CALCULATIONS INVOLVING CHEMICAL REACTIONS

Click on the links to see the detailed answers for each question.

1. [Calculations involving neutralization reactions](#)

Calculate the volume of a 0.200 M KOH solution that is needed to neutralize 25.00 mL of a 0.115 M HCl solution.

2. [Mole-mole calculation](#)

How many moles of oxygen gas is required to burn 3.60 moles of ethyl alcohol, C_2H_5OH ?

3. [Mass-mass calculation](#)

How many grams of oxygen gas is required to burn 20.5 grams of ethyl alcohol, C_2H_5OH ?

4. [Mass-mole calculation](#)

How many moles of carbon dioxide gas is produced when 20.5 grams of ethyl alcohol, C_2H_5OH , is burned?

5. [Limiting reagent calculation](#)

(a) How many grams of carbon dioxide gas is produced when 20.5 grams of ethyl alcohol, C_2H_5OH , burns with 100.0 grams of oxygen, O_2 ?

(b) Identify the limiting reagent and how much of the other reactant is left over?