//Chemical Equation

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Program to balance the given chemical equation values x,y,p,q of a simple chemical equation

of the type:

The task is to find the values of constants b1, b2, b3 such that the equation is balanecd on both sides

and it must be the reduced form

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#include<stdio.h>

void balance(int,int,int,int);

int gcd(int,int);

int main()

{

int k,l,m,n;

printf("\n Enter the atomic nature of reactants x and y:");

scanf("%d%d",&k,&l);

printf("\nEnter the atomic nature of products p and q:");

scanf("%d%d",&m,&n);

balance(k,l,m,n);

}

void balance(int x,int y,int p,int q)

{

int b1,b2,b3,temp;

if(p%x==0 && q%y==0)

{

b1=(p/x);

b2=(q/y);

b3=1;

}

else{

p=p\*y;

q=q\*x;

b3=x\*y;

temp=gcd(p,gcd(q,b3));

b1=(p/temp);

b2=(q/temp);

b3=(b3/temp);

}

printf("The coefficients are b1=%d, b2=%d, b3=%d",b1,b2,b3);

}

int gcd(int a,int b)

{

int hcf;

for(int i=1;i<=a && i<=b;i++)

{

if(a%i==0 && b%i==0)

{

hcf=i;

}

}

return hcf;

}

