```c
// To perform arithmetic operations like addition, subtraction, multiplication and division on 8-bit unsigned numbers.
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//NNM24EE127
//EXPERIMENT 1C

#include<reg51.h>
unsigned char num1=0xC7, num2=0xB2, sum, difference, reminder, quotient;
unsigned int product;
void main(void)
{
  //ADDITION OF TWO NUMBER AND DISPLAY IN PORT 2 THE RESULT AND PSW STATUS IN P1
  sum=num1+num2;                                  //adding number 0xC7 with 0xB2 and storing result 0x79 in the variable sum
  P2=sum;                                         //displaying the result 0x79in the port 2
  P1=PSW>>7;                                      //DISPLAYING THE VALUE IN CARRY BY SHIFTING PSW 7 TIMES

  //SUBSTRACTION OF TWO NUMBERS AND DISPLY IN PORT 2 THE RESULT AND PSW STATUS IN P1
  difference=num1-num2;                           //subtracting 0xc7 with 0xb2 and storing result 0x15 in differene
  P2=difference;                                  //displaying result in p2
  P1=PSW>>7;                                      //displaying the psw stauts d7 in p1 port by shifting psw 7 times

  //DIVISION OF TWO NUMBERS AND DISPLAY THE QUOTIENT IN P2 AND REMINDER IN P1
  quotient=num1/num2;                             //dividing 0xc7 with 0xb2 and storing in quotient
  reminder=num1%num2;                             //0xc7%0xb2 to get reminder and storing in reminder
  P2=quotient;                                    //dispalying quotient in port 2
  P1=reminder;                                    //dispalying reminder in port 1

  //MULTIPLICATION OF TWO NUMBERS AND DISPLAY HIGHER NIBBLE IN P1 AND LOWER NIBBLE P2
  product=num1*num2;                              //multiplying 0xc7 with 0xb2 and storing in product and it is an 16bit answer
  P2=product;                                  //displaying value of only lower nibble of product by anding with 0x00ff
  P1=product>>8;                                  //displaying higher nibble of product by shiffting right side to 8 times
}


```