MODULE 2 - EXERCISE 4: Pass by Value (page 41)

Given Program 2.36 below, answer all questions in this part.

```cpp
// Program 2.36
#include <iostream.h>

class number
{
    int num1, num2;
public:
    number (int, int);
    void change (int, int);
    int get_num1() { return num1; }
    int get_num2() { return num2; }
};

number::number (int no1, int no2)
{
    num1 = no2;
    num2 = no1;
}

void number::change (int change1, int change2)
{
    num1 += change2;
    num2 += change1;
}

void calc(number N)
{
    if ((N.get_num1() < 0) || (N.get_num2() < 0))
    {
        N.change(5, 2);
        cout << "\nNo. 1 in function = " << N.get_num1();
        cout << "\nNo. 2 in function = " << N.get_num2();
    }
    else
        cout << "\nNo changes for No. 1 and No. 2";
}

int main()
{
    number test(-3, 8);
    cout << "\nValue of Num 1 = " << test.get_num1();
    cout << "\nValue of Num 2 = " << test.get_num2();
    calc(test);
    cout << "\nValue of Num 1 = " << test.get_num1();
    cout << "\nValue of Num 2 = " << test.get_num2();
    system("pause");
    return 0;
}
```

a) Describe method of passing parameter to calc() function. What type of passing parameter is implemented in calc() function?
b) Write the output of Program 2.36.
c) Modify calc() function so that it will pass parameter by reference.
d) Give the output, if pass by reference concept is implemented on calc() function.

MODULE 2 - LAB 2: CLASS AND OVERLOAD CONSTRUCTOR (page 44)

Type in Program 2.27, date2.cpp and run the program. What error do you get from the program. Debug the errors. Modify the program so that it can either print the month in integer or print the month name.

```cpp
// Program 2.27
// date2.cpp
// Overload constructor
#include <iostream>
#include <string>

using namespace std;

class date
{
    int day, year, month;
    string month2;

public:
    // overload constructor definition
    date(int a = 1, string b = "January", int c = 1, int d = 2019);
    date(int);
    void print();
};

// constructor implementation
date::date(int a)
{
    day = 31;
    month = 8;
    month2 = "August";
    year = a;
}

date::date(int a, string b, int c, int d)
{
    day = a;
    month2 = b;
    month = c;
    year = d;
}

void date::printDate()
{
    cout << "\nDate is : " << day << "-" << month << "-" << year;
}

main()
{
    date NationalDay(2019);
    // declare instance of date using default argument
    NationalDay.printDate();
}
```