

Restoring division of two numbers

```
#include<stdlib.h>

#include<stdio.h>

Int acum[100]={0}      ;

Void add(int acum[],int b[],int n);

Int q[100],b[100];

Int main()

{

Int x,y;

Printf("Enter the Number and Divisor :");

Scanf("%d%d",&x,&y);

Int i=0;

While(x>0 | y>0)

{

If(x>0)

{

Q[i]=x%2;

X=x/2;

}

Else

{

Q[i]=0;

}

If(y>0)

{

B[i]=y%2;

Y=y/2;

}

Else
```

```
{  
B[i]=0;  
}  
l++;  
}
```

```
Int n=l;  
Int bc[50];  
Printf("\n");  
For(i=0;i<n;i++)  
{  
If(b[i]==0)  
{  
Bc[i]=1;  
}  
Else  
{  
Bc[i]=0;  
}  
}  
Bc[n]=1;  
For(i=0;i<=n;i++)  
{  
If(bc[i]==0)  
{  
Bc[i]=1;  
l=n+2;  
}  
Else
```

```

{
    Bc[i]=0;
}
}
Int l;
    B[n]=0;
Int k=n;
Int n1=n+n-1;
Int j,mi=n-1;
For(i=n;i!=0;i--)
{
    For(j=n;j>0;j--)
    {
        Acum[j]=acum[j-1];

    }
    Acum[0]=q[n-1];
    For(j=n-1;j>0;j--)
    {
        Q[j]=q[j-1];
    }

    Add(acum,bc,n+1);
    If(acum[n]==1)
    {
        Q[0]=0;
        Add(acum,b,n+1);
    }
    Else

```

```

{
Q[0]=1;
}
}
Printf("\nQuoient : ");

For( l=n-1;l>=0;l--)
{
Printf("%d",q[l]);

}
Printf("\nRemainder : ");
For( l=n;l>=0;l--)
{
Printf("%d",acum[l]);
}
Return 0;
}
Void add(int acum[],int bo[],int n)
{
Int i=0,temp=0,sum=0;
For(i=0;i<n;i++)
{
Sum=0;
Sum=acum[i]+bo[i]+temp;
If(sum==0)
{
Acum[i]=0;
Temp=0;

```

```
}  
Else if (sum==2)  
{  
Acum[i]=0;  
Temp=1;  
}  
Else if(sum==1)  
{  
Acum[i]=1;  
Temp=0;  
}  
Else if(sum==3)  
{  
Acum[i]=1;  
Temp=1;  
}  
}
```

The image shows a screenshot of a C program being developed in the wxSmith IDE and its execution output in a separate window.

IDE Window (3 STAGE PIPELINING OR.c):

```
1 #include<stdlib.h>
2 #include<stdio.h>
3 int acum[100]={0} ;
4 void add(int acum[],int b[],int n);
5 int q[100],b[100];
6 int main()
7 {
8     int x,y;
9     printf("Enter the Number and Divisor :");
10    scanf("%d%d",&x,&y);
11    int i=0;
12    while(x>0||y>0)
13    {
14        if(x>0)
15        {
16            q[i]=x%2;
17            x=x/2;
18        }
19        else
20        {
21            q[i]=0;
22        }
23        if(y>0)
```

Execution Window ("C:\Users\Admin\Documents\3 STAGE PIPELINING OR.exe"):

```
Enter the Number and Divisor :20
3
Quoient : 00110
Remainder : 000010
Process returned 0 (0x0) execution time : 6.090 s
Press any key to continue.
```