```c
#include <stdio.h>
#include<math.h>
int main()
{
    int a,b,ch;
    do
    {
        printf("1:Addition\n2:Subtraction\n3:Multiplication\n4:Division\n");
        printf("5:Greatest\n6:Smallest\n7:Equality\n8:Inequality\n");
        printf("9:Average\n10:Powers\n11:Exit\n");
        printf("enter choice\n");
        scanf("%d",&ch);
        if(ch==11)
        break;
        printf("enter the two numbers\n");
        scanf("%d %d",&a,&b);
        switch(ch)
        {
            case 1:
            printf("Sum is %d\n",a+b);
            break;

            case 2:
            printf("%d - %d is %d\n",a,b,a-b);
            printf("%d - %d is %d\n",b,a,b-a);
            break;

            case 3:
            printf("product is %d\n",a*b);
            break;

            case 4:
            printf("%d - %d is %f\n",a,b,(float)(a/b));
            printf("%d - %d is %f\n",b,a,(float)(b/a));
            break;
```

```c
case 5:
if(a>b)
printf("%d is greatest\n",a);
else if(b>a)
printf("%d is greatest\n",b);
else
printf("they are equal\n");
break;

case 6:
if(a<b)
printf("%d is smallest\n",a);
else if(b<a)
printf("%d is smallest\n",b);
else
printf("they are equal\n");
break;

case 7:
if(a==b)
printf("they are equal\n");
else
printf("they are not equal\n");
break;

case 8:
if(a!=b)
printf("they are inequal\n");
else
printf("they are not inequal\n");
break;

case 9:
printf("average is %f\n",(float)((a+b)/2));
break;
```

```c
        case 10:
        printf("%d ^ %d is %f\n",a,b,pow(a,b));
        printf("%d ^ %d is %f\n",b,a,pow(b,a));
        break;

        case 11:
        break;

        default:
        printf("wrong choice!\n");
        break;
    }

}while(ch!=11);

return 0;
}
```

```
1:Addition
2:Subtraction
3:Multiplication
4:Division
5:Greatest
6:Smallest
7:Equality
8:Inequality
9:Average
10:Powers
11:Exit
enter choice
1
enter the two numbers
2
3
Sum is 5
1:Addition
2:Subtraction
3:Multiplication
4:Division
5:Greatest
6:Smallest
7:Equality
8:Inequality
9:Average
10:Powers
11:Exit
enter choice
```

```
enter choice
10
enter the two numbers

4
2
4 ^ 2 is 16.000000
2 ^ 4 is 16.000000
```

```
1:Addition
2:Subtraction
3:Multiplication
4:Division
5:Greatest
6:Smallest
7:Equality
8:Inequality
9:Average
10:Powers
11:Exit
enter choice
11


...Program finished with exit code 0
Press ENTER to exit console.
```