

lab task 5

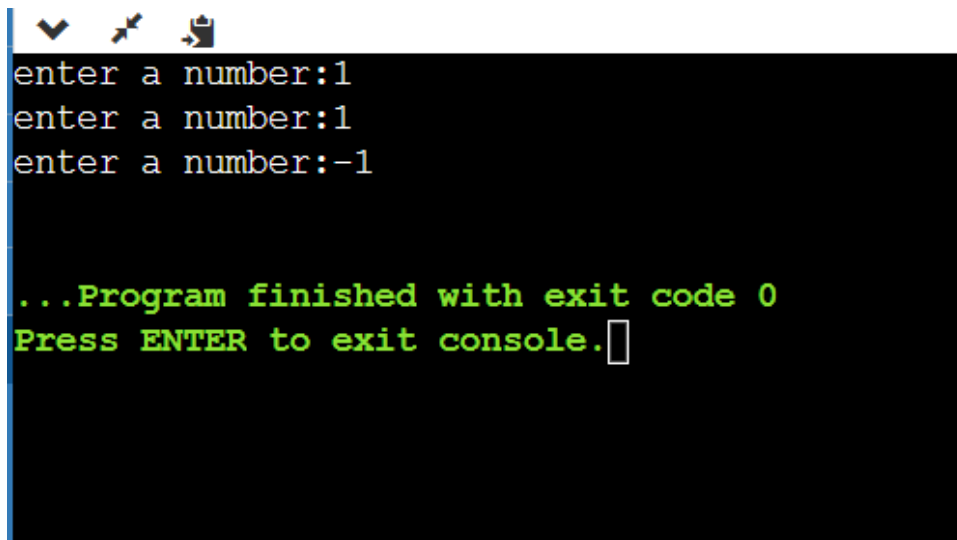
NAME:Muhammad Ahmed Naseer

SEC:ME-15A

ID:467276

### TASK 1:

```
#include <iostream>
using namespace std;
int main()
{
    int x=1;
    do{
        cout<<"enter a number:";
        cin>>x;
    }while(x>0);
}
```



```
enter a number:1
enter a number:1
enter a number:-1

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

### TASK 2:

```
#include <iostream>
#include <math.h>
```

```
using namespace std;

int main()
{
    int a,b,c;
    char ch, R;
    do{
        cout<<"Enter a Number:";
        cin>>a;
        cout<<"Enter a Number:";
        cin>>b;
        cout<<"enter + for addition,";
        cout<<"enter - for subtraction,";
        cout<<"enter * for multiplication,";
        cout<<"enter / for division,";
        cout<<"enter % for mod,";
        cout<<"enter ^ for power"<<endl;
        cin>>ch;
        switch(ch){
            case '+':cout<<"c="<<a+b<<endl;
                break;
            case '-':cout<<"c="<<a-b<<endl;
                break;
            case '*':cout<<"c="<<a*b<<endl;
                break;
            case '/':cout<<"c="<<a/b<<endl;
                break;
            case '%':cout<<"c="<<a%b<<endl;
                break;
            case '^':cout<<"c="<<pow(a,b)<<endl;
```

```

input
Enter a Number:3
Enter a Number:5
enter + for addition,enter - for subtraction,enter * for multiplication,enter / for division,enter % for mod,enter ^ for power
+
c=15
press R for restartR
Enter a Number:3
Enter a Number:5
enter + for addition,enter - for subtraction,enter * for multiplication,enter / for division,enter % for mod,enter ^ for power
+
c=8
press R for restartR
Enter a Number:3
Enter a Number:5
enter + for addition,enter - for subtraction,enter * for multiplication,enter / for division,enter % for mod,enter ^ for power
^
c=243
press R for restartA

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

```

```
#include <iostream>

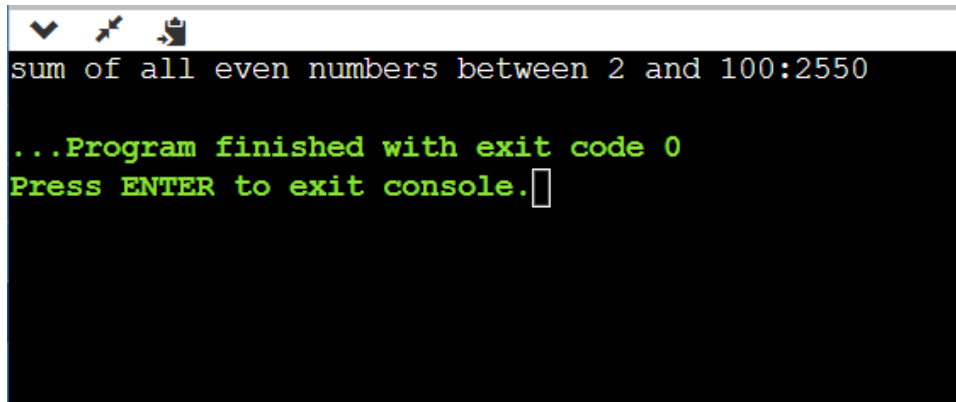
using namespace std;

int main()
{
    int sum, a=1;

    while(a<=100){
        if(a%2==0)
            sum=sum+a;

        a++;
    }

    cout<<"sum of all even numbers between 2 and 100:"<<sum;
}
```



```
sum of all even numbers between 2 and 100:2550
...Program finished with exit code 0
Press ENTER to exit console.
```

TASK 3(B):

```
using namespace std;
```

```
int main() {
```

```
int a, b=1;
```

```
do{
```

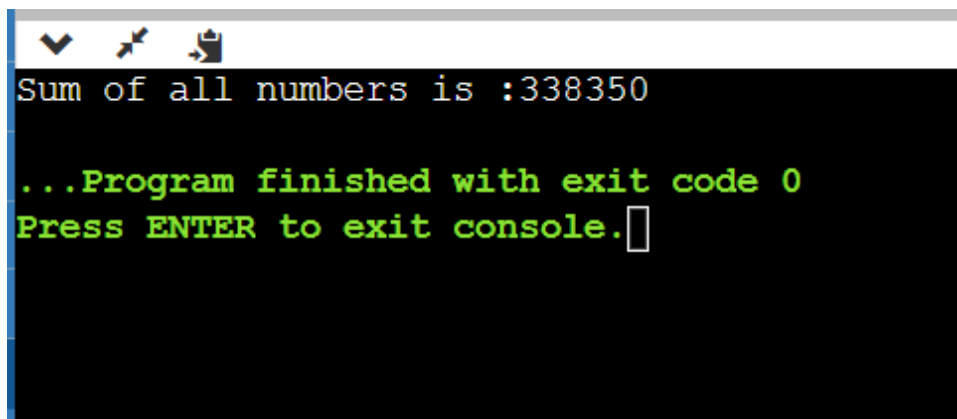
```
a=a+b*b;
```

```
b++;
```

```
}while(b<=100);
```

```
cout<<"Sum of all numbers is :"<<a;
```

```
}
```

A screenshot of a Windows console window. The title bar is grey with standard Windows icons. The console background is black with white text. The text displayed is: "Sum of all numbers is :338350" on the first line, "...Program finished with exit code 0" on the second line, and "Press ENTER to exit console." on the third line, followed by a white cursor box.

```
Sum of all numbers is :338350
...Program finished with exit code 0
Press ENTER to exit console.
```

Task 4(A):

```
#include <iostream>
```

```
#include<cmath>
```

```
using namespace std;
```

```
int main() {
```

```
int p, x=2, y=1;
```

```
while(y<=20){
```

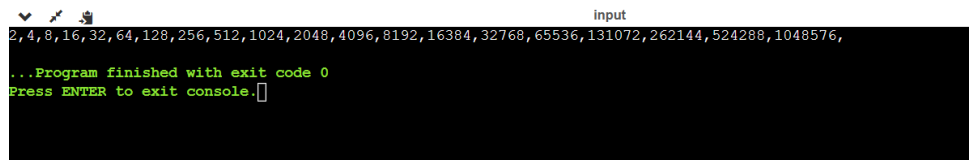
```
p=pow(x,y);
```

```
y++;
```

```
cout<<p<<" ";
```

```
}
```

```
}
```



A screenshot of a terminal window. The title bar shows a window icon, a maximize icon, and a close icon, followed by the word "input". The terminal content displays a long list of numbers: 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576. Below this list, it says "...Program finished with exit code 0" and "Press ENTER to exit console." followed by a cursor.

```
2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576,  
...Program finished with exit code 0  
Press ENTER to exit console.█
```

Task 4(B):

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
int x, y, z;
```

```
cout<<"Enter a number:";
```

```
cin>>x;
```

```
cout<<"Enter another number :";
```

```
cin>>y;
```

```
while(x<=y){
```

```
if(x%2==1)
```

```
z=z+x;
```

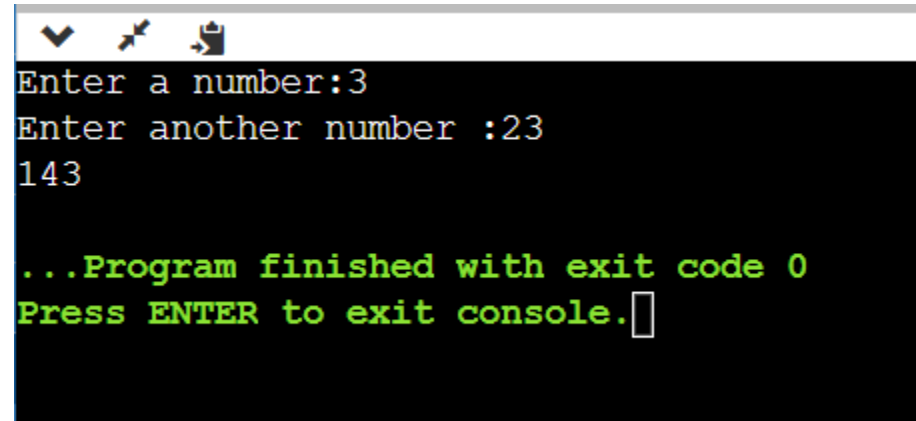
```
x++;
```

```
}
```

```
cout<<z;
```

```
return 0;
```

```
}
```



A screenshot of a console window with a black background and white text. The window has a title bar with three icons: a checkmark, a magnifying glass, and a document. The text inside the console shows the program's execution flow: a prompt to enter a number, followed by the input '3', another prompt for a second number, followed by the input '23', and the resulting output '143'. At the end, a green message indicates the program finished successfully with exit code 0, followed by a prompt to press ENTER to exit the console.

```
Enter a number:3
Enter another number :23
143

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