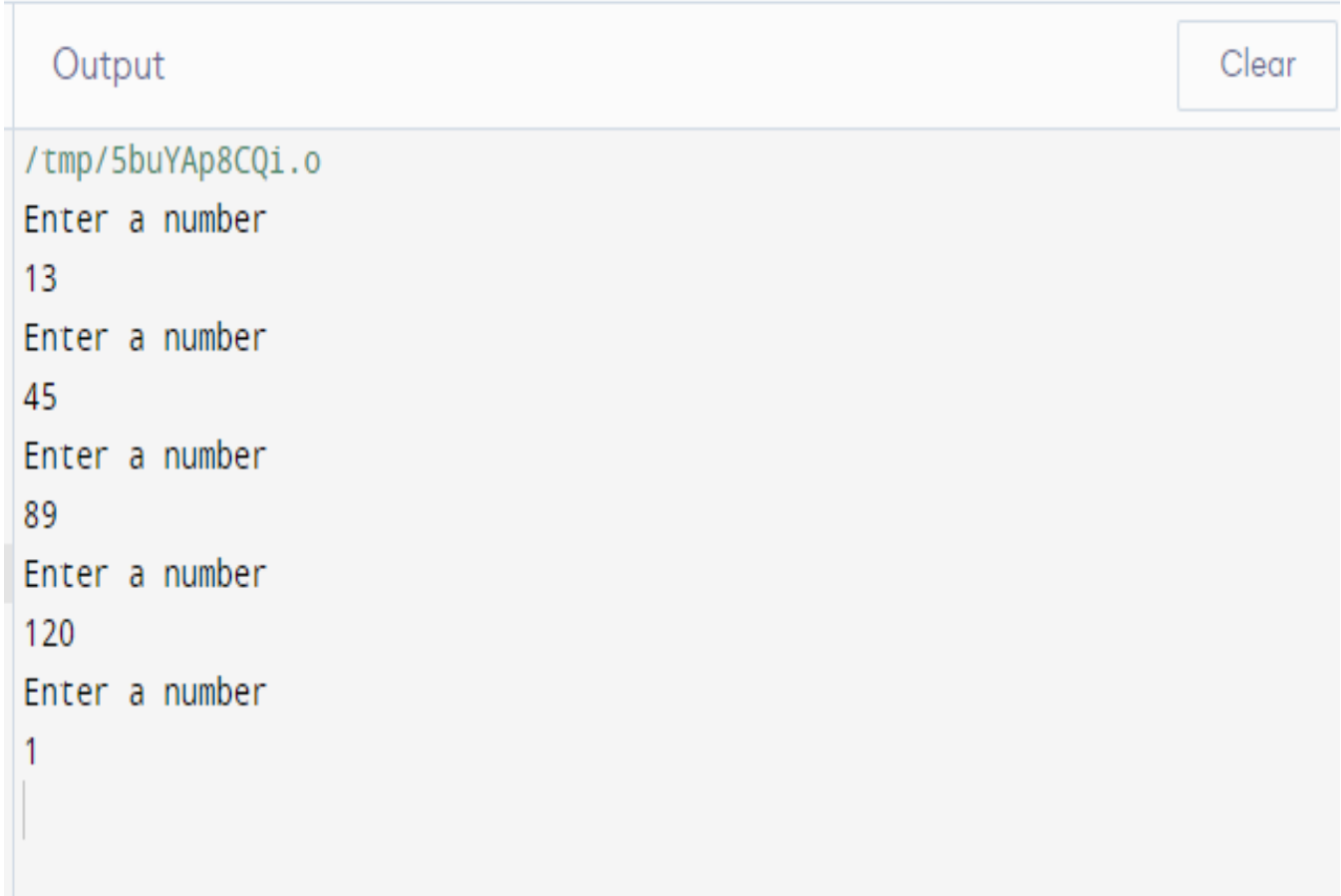
TASK # 01

- Convert the following while loop to a do-while loop:

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



TASK # 02

- Use a do while loop to make a simple calculator for two numbers. Insert buttons for it to ask again and for termination.

```
#include <math.h>
#include<iostream>
using namespace std;
  int main(){
double x,y, power,sum,diff,r,division,product;    char z,repeat;
cout<<"Enter first number"<<endl;cin>>x;cout<<"Enter second
number"<<endl;cin>>y;
cout<<"enter the symbol denoting the operation to be performed"<<endl;
cin>>z;
do{
switch (z){
case '+’:
   sum = x+y;   cout<<"x+y = "<<sum<<endl;   break;
case '-’:
  diff= x-y;   cout<<"x-y = "<<diff<<endl;   break;
 case '*’:
  product = x*y;   cout<<"x*y = "<<product<<endl;   break;
```

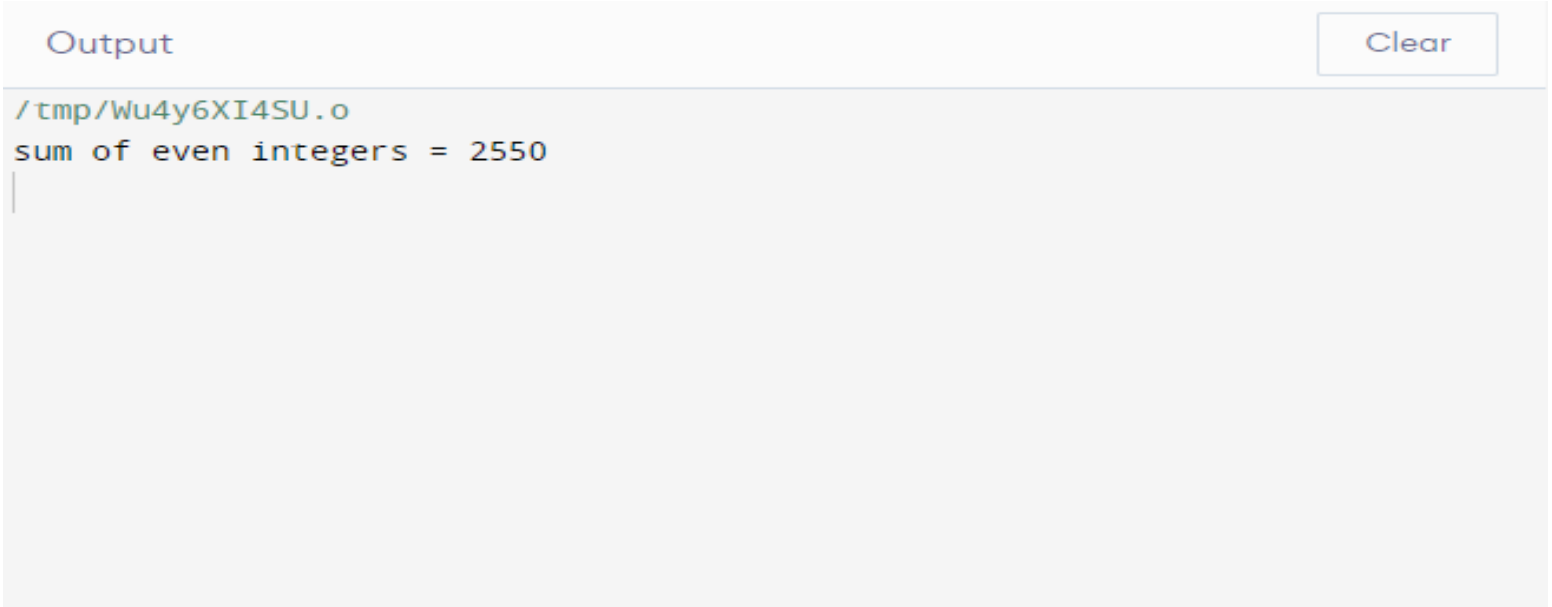
```
Output                                                    Clear
/tmp/fxmVbcSQoo.o
Enter first number
3.45
Enter second number
5.78
enter the symbol denoting the operation to be performed
%
x%y = 3.45
do you want to repeat this procedure?
enter y for yes and n for no
y
Enter first number
7.89
Enter second number
5.67
enter the symbol denoting the operation to be performed
^
x^y = 122019
do you want to repeat this procedure?
enter y for yes and n for no
n
```

```
case '/':
 division = x/y;   cout<<"x/y = "<<division<<endl;   break;
  case '%':
    r= fmod( x,y);    cout<<"x%y = "<<r<<endl;   break;
   case '^':
  double power = pow(x,y);   cout<<"x^y = "<<power<<endl;   break;
}
  cout<<"do you want to repeat this procedure?"<<endl;
  cout<<"enter y for yes and n for no"<<endl;
  cin>>repeat;
 cout<<"Enter first number"<<endl;
cin>>x;
cout<<"Enter second number"<<endl;
cin>>y;
cout<<"enter the symbol denoting the operation to be performed"<<endl;
cin>>z;}
while (repeat=='y');
return 0;}
```

TASK # 03

- Write programs with while or do while loops that compute:
- a. The sum of all even numbers between 2 and 100 (inclusive).
- b. The sum of all squares between 1 and 100 (inclusive).

```
#include <iostream>
using namespace std;
int main (){
  int x,sum;
   x=2;    sum=0;
 while (x<101){
   sum=sum+x;
    x= x+2;}
cout<<"sum of even integers = "<<sum<<endl;
return 0;
}
```

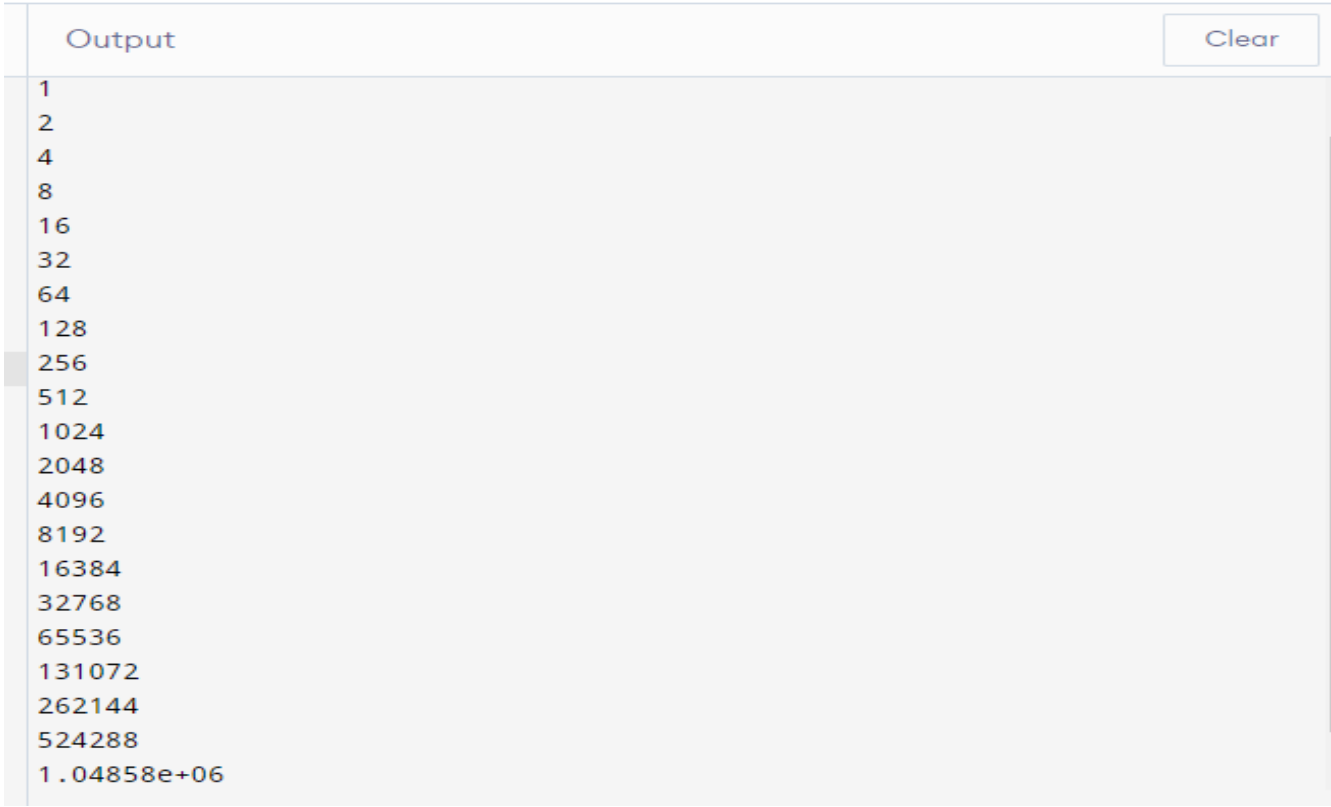


```
#include <iostream>
#include <math.h>
using namespace std;
int main (){
  double x,power,sum;
   x=1;    sum=0;
while (x<=100){
  power=pow(x,2);
  sum = sum+power;
  x= x+1;
}
cout<<"sum of squares = "<<sum<<endl;
return 0;
}
```

TASK # 04

- Write programs with while or do while loops that compute:
- a. All powers of 2 from 20 up to 220.
- b. The sum of all odd numbers between a and b (inclusive), where a and b are inputs.

```
#include <iostream>
#include <math.h>
using namespace std;
int main (){
  double x,power;
   x=0;
while(x<=20){
power=pow(2,x);
cout<<power<<",";
x=x+1;
}
return 0;
}
```



```
#include <iostream>
using namespace std;
int main (){
    int x,y,sum;
     sum=0;
     cout<<"Enter first odd integer"<<endl;
     cin>>x;
     cout<<"Enter second odd integer"<<endl;
     cin>>y;
  while (x<=y){
     sum=sum+x;
     x=x+2;}
  cout<<"sum of odd integers = "<<sum;
return 0;
}
```