```
#include<iostream>
#include<math.h>
using namespace std;
int main()
{
	//TASK 1
	int x = 1;
	do {
		cout<<"enter a number ";
		cin>>x;
	}
	while(x>0);
		//TASK 2
	 int a, b , answer=0 ,I;
 char op;
 do {
    cout<<"enter first number "<<endl;
    cin>>a;
    cout<<"enter second number "<<endl;
    cin>>b;
    cout<<"enter operation(+,-,*,/,%,^ "<<endl;
    cin>>op;
    switch (op) {
       case '+':
       answer=a+b;
       break;
        case '-':
       answer=a-b;
       break;
        case '*':
       answer=a*b;
```

```
        break;
         case '/':
         if (b==0) {
            cout<<"error "<<endl;
         }
        answer=a/b;
        break;
          case '%':
         if (b==0) {
            cout<<"error "<<endl;
         }
        answer=a%b;
        break;
        case '^':
        answer=pow(a,b);




        default:
        cout<<"syntax error retry "<<endl;
     }
          cout<<"answer is "<<answer <<endl;

     cout<<"if you want to continue press 1 otherwise press 0 to end "<<endl;
    cin>>I;
  }
  while (I==1);
//TASK 3a
           int po2=2,posum=0;
while (po2<=100) {
   if (po2%2==0) {
```

```
     posum =posum+po2;
   }
   po2++;

}
            cout<<posum<<endl;

            //TASK 3b
            int PO=1,POsum=0;
while (PO<=100) {
   POsum=POsum + PO*PO;
   PO++;

}
 cout<<POsum<<endl;
//TASK 4a
            int INT=0;
while (INT<=20) {

  cout<<pow(2,INT)<<endl;
   INT++;
}

            //TASK 4b
            int e,d , SUM=0 ;
cout<<"enter smaller number"<<endl;
cin>>e;
cout<<"enter larger number"<<endl;
cin>>d;
            if (e>d){cout<<"invalid second number "<<endl;}
            else {
```

```
        while (e<=d ) {
   if (e%2==1 )
        {SUM=SUM+e;}
   e++;
}
cout<<SUM<<endl;}


        return 0;
}
```

The consoles for this whole code is:

```
enter a number 1
enter a number 0
enter first number
123
enter second number
23
enter operation(+,-,*,/,%,^

+
answer is 146
if you want to continue press 1 otherwise press 0 to end
0
2550
338350
1
2
4
8
16
32
64
128
256
512
1024
2048
4096
8192
16384
32768
65536
131072
262144
524288
1.04858e+006
enter smaller number
123
enter larger number
456
48263

--------------------------------
Process exited after 25.71 seconds with return value 0
Press any key to continue . . .
```