```cpp
#include <iostream>
#include <cmath>
using namespace std;

int main() {
	//Task 1
	//int x = 1;
	//do {
	//	cout << "Enter a number: ";
	//	cin >> x;
	// } while (x > 0);



	//Task2
	char choice;
	do {
		char op;
		double y, z, result;
		cout << "Enter the first number ";
		cin >> y;
		cout << "Enter which operations you want to carry out: +,-, /, *, ^ "
<< endl;
		cin >> op;
		cout << "Enter the second number ";
		cin >> z;
		result = 0;
		switch (op) {
		 case '+':
			result = y + z;
			break;

		 case '-':
				result = y - z;
				break;
		 case '*':
			result = y * z;
			break;
		 case '/':
			if (z != 0) {
				result = y / z;

			}
			else {
				cout << "Error! You can't divide by 0" << endl;
				continue;
			}
			break;

		 case '^':
			result = pow(y, z);
			break;

		 default :
			cout << "Invalid operation. Try again!" << endl;
			continue;
		}
```

```
            cout << result <<endl;
            cout << "Do you want to go again? Y/N?";
            cin >> choice;

      } while (choice == 'Y' || choice == 'y');
      cout << "Calculator terminating" << endl;


      //Task3(a)
      int sum = 0;
      int m = 2;
      do {
            sum = sum + m;
            m = m + 2;
      } while (m <= 100);
      cout << sum;

      //Task3 (b)
      int s = 0;
      int v = 1;
      do {
            int j = pow(v, 2);
            s = s + j;
            v = v + 1;
      } while (v <= 100);
      cout << s;

      //Task4(a)
      int k = 0;
      int w;
      do {
            w = pow(2, k);
            cout << w;
            k++;
      } while (k <= 20);


      //Task4(b)
      int a, b;
    cout << "Enter two numbers ";
    cin >> a >> b;
    int qq = 0;
  do {
      if (a % 2 == 1) {
            qq = qq + a;
      }

      a++;
  } while (a <= b);
   cout << qq;



}
```

```
Enter the first number 10
Enter which operations you want to carry out: +,-, /, *, ^
*
Enter the second number 2
20
Do you want to go again? Y/N?N
Calculator terminating
```

Task 2

main.cpp Run Output

```cpp
#include <iostream>
#include <cmath>
using namespace std;

int main () {
 int sum = 0;
int m = 2;
do {
    sum = sum + m;
    m = m + 2;
} while (m <= 100);
cout << sum;

}
```

```
/tmp/qnwJc2YV4H.o
2550
```

Task 3 (a)

main.cpp Run Output

```cpp
#include <iostream>
#include <cmath>
using namespace std;

int main () {
 int s = 0;
int v = 1;

do {
    int j = pow(v, 2);
    s = s + j;
    v = v + 1;
} while (v <= 100);
cout << s;

}
```

```
/tmp/qnwJc2YV4H.o
338350
```

Task 3 (b)

```
/tmp/qnwJc2YV4H.o
1
2
4
8
16
32
64
128
256
512
1024
2048
4096
8192
16384
32768
65536
131072
262144
524288
1048576
```

Task 4 (a)

main.cpp

Run

Output

```
4
5  int main () {
6    int a, b;
7  cout << "Enter two numbers ";
8  cin >> a >> b;
9  int qq = 0;
10 do {
11     if (a % 2 == 1) {
12         qq = qq + a;
13     }
14
15     a++;
16 } while (a <= b);
17 cout << qq;
18
19
20 }
21
```

```
/tmp/qnwJc2YV4H.o
Enter two numbers 1
10
25
```

Task 4 (b)