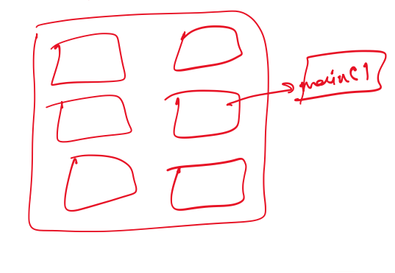
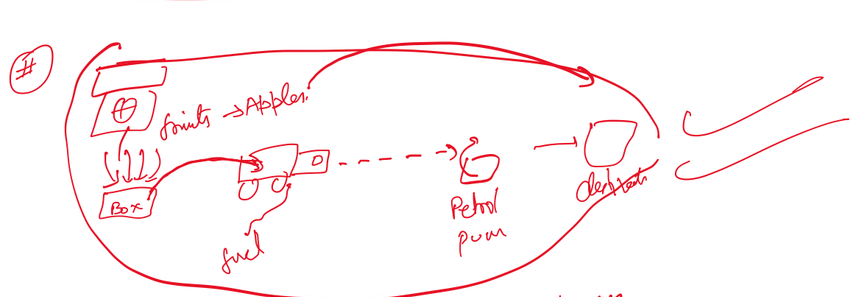
Introduction to Functions

Friday, 22 January 2021 6:42 PM

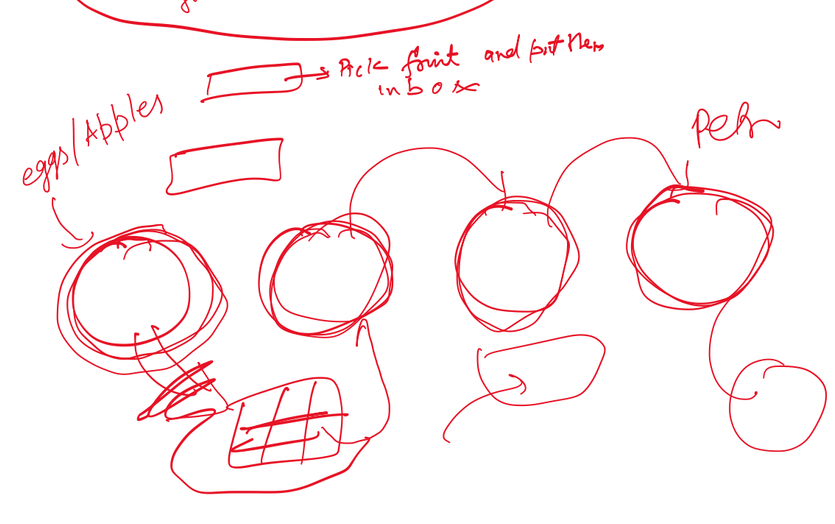
structured Language



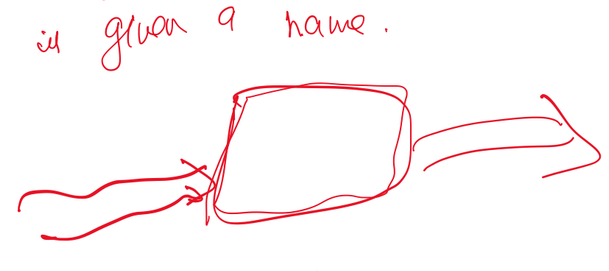
#


fruits → Apples
Box
fuel
Petrol pum
destinatn

→ Pick fruit and put them in box


eggs/Apples
Petr

a function is a block of code that performs a particular task, and it is given a name.



sin (30) → 1/2

abs -20 → 20

Types of Function

- Library Function
  - → Built in function
  - → Defined in header file
- User defined Function
  - → Defined by user in a program
  - → Reduces the code size

⇒ make our code reusable

⇒ Divide our into modular chunks.

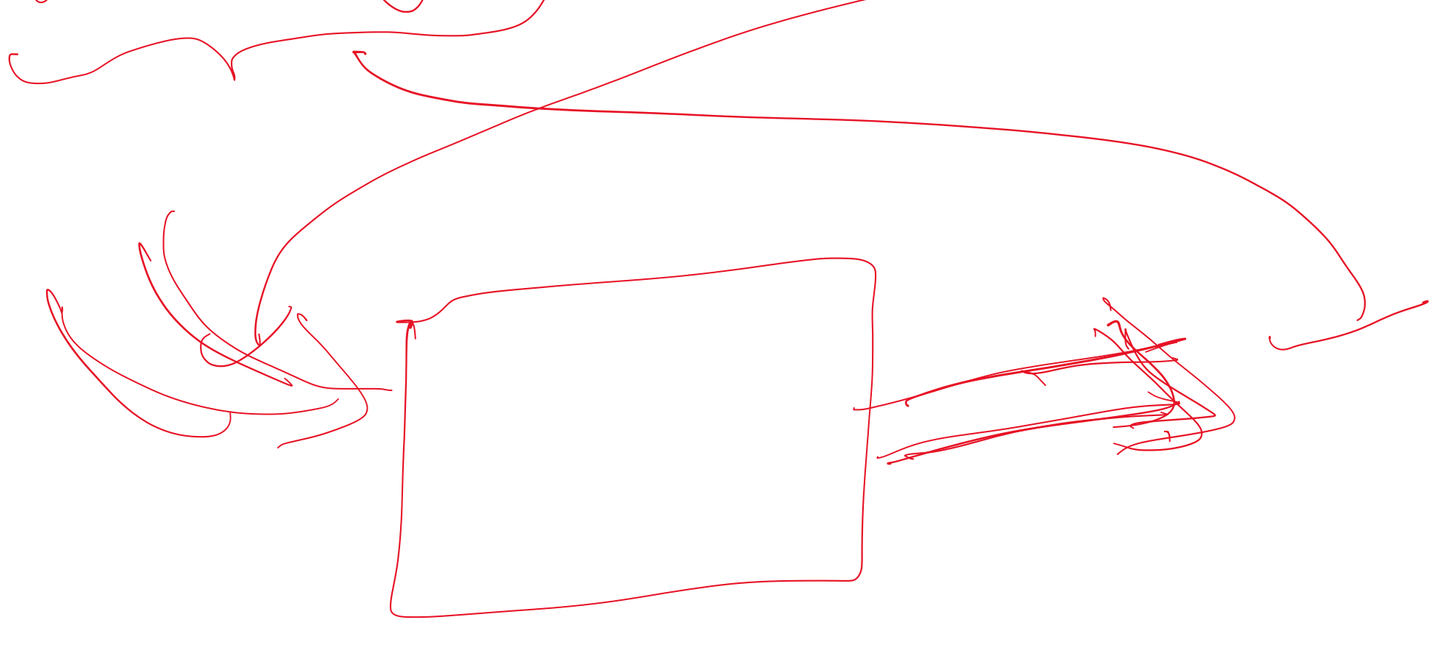
⇒ Avoid code repetition

⇒ make our code neat.

⇒ 1) declaration → int x;

2) Definition.

return_type function_name (function_parameters);



a^b → integer

```
int power (int, int);
void power (int, int)
void power ( );
```

```
int max (int, int, int);
int max (int a, int b, int c)
    if (a>b && a>c) return a

max (5, 8, 3)
```

Parameters

- Actual parameters
- Formal parameters.

```
int f (int a, int b) {     formal
    return r
}

int main () {
    cout << f(6,3) << endl     Actual parameters
}
```

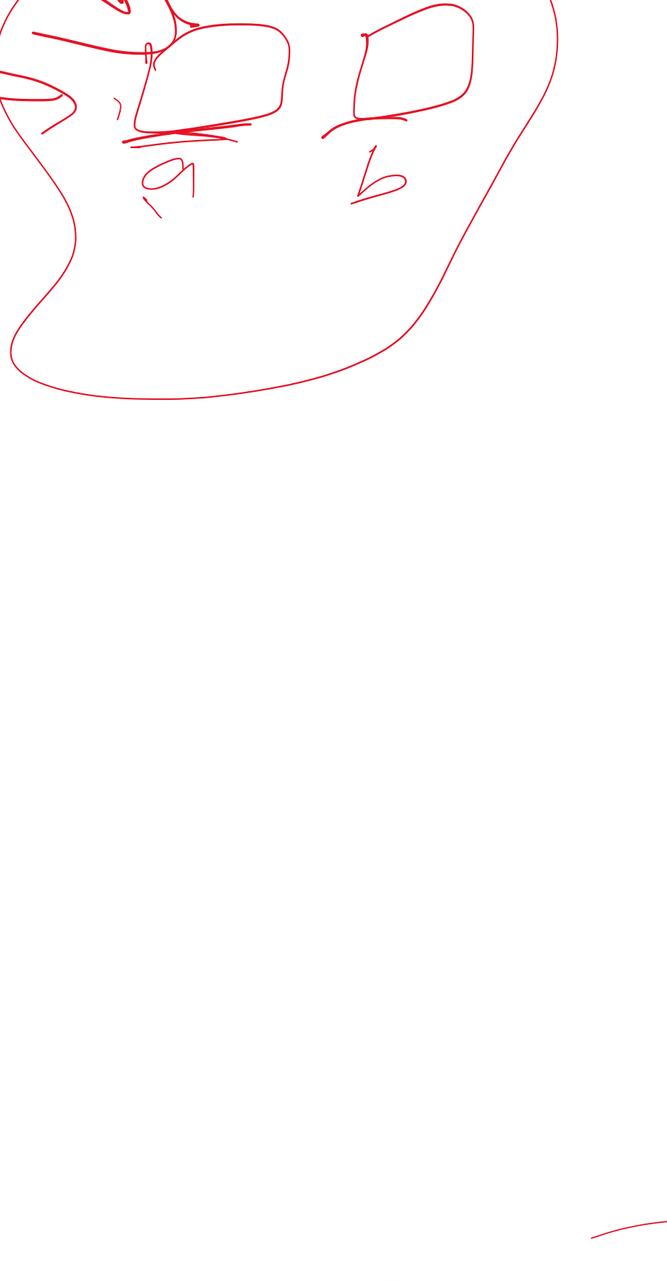
Passing the values inside a function

- pass by value
- Pass by reference

```
f (int a, int b)
main
    int a;
    f(a, b)
```

```
f (int &c, int &d) {}

main {
    int a, b;
}
```



&

```
f (int c[], int d[]) {

}

int a[100], b[100];
f (a, b)
```

&a

```
int f (int &c)
```

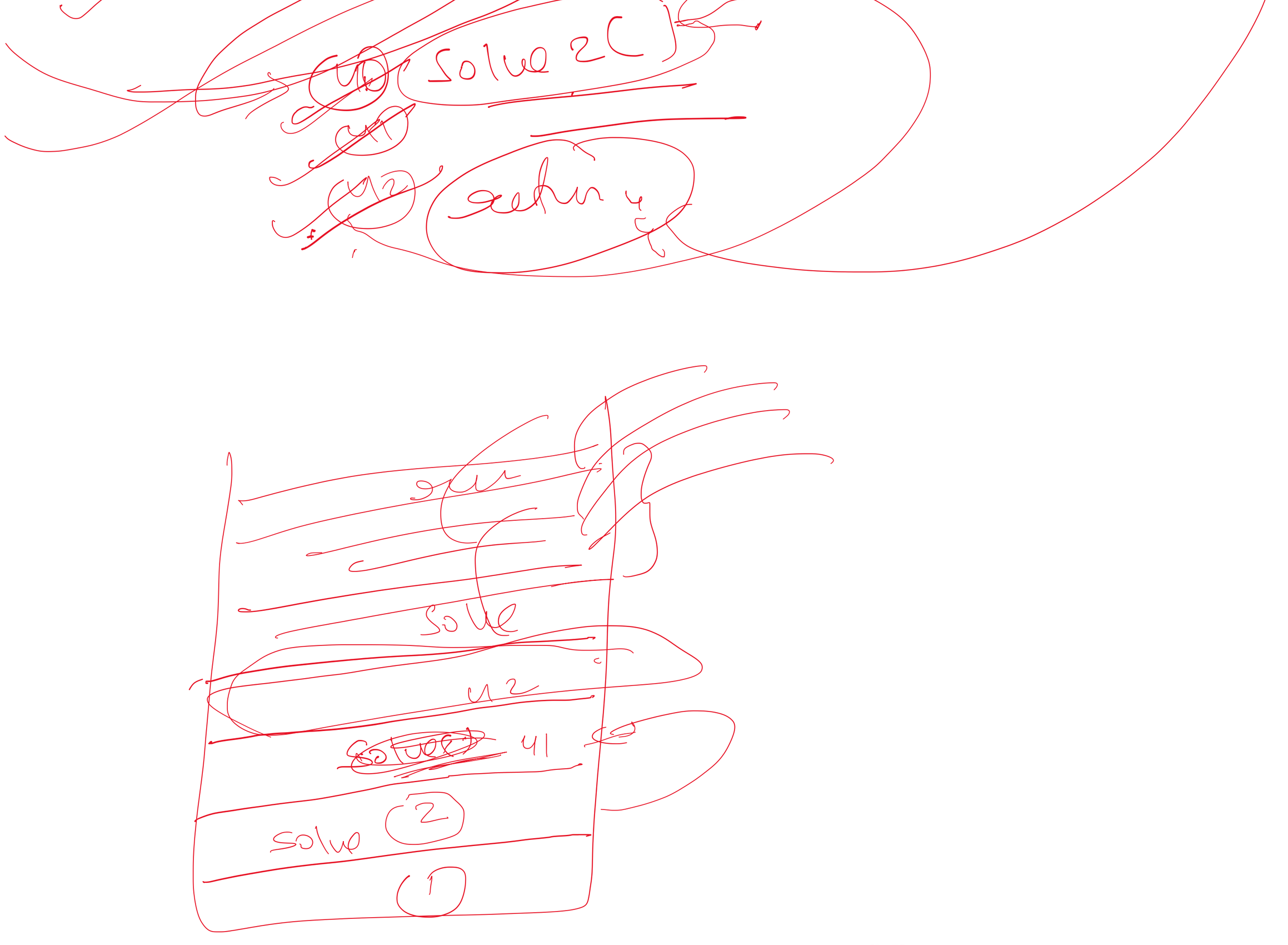
Scope of Variables

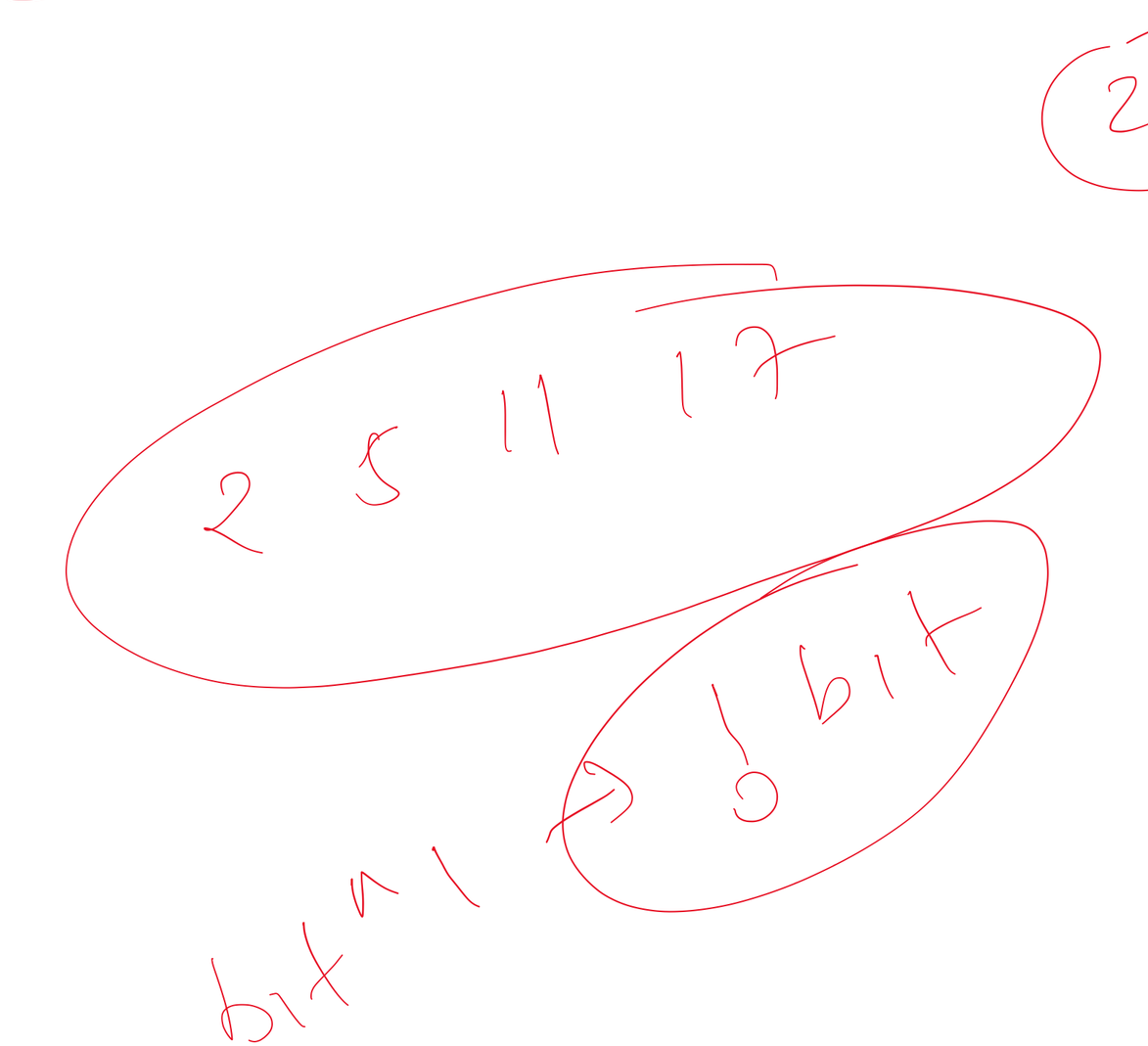
Local Variable

Global Variable

2
3
1 2 3
4
1 2 4 3 9

T
N.
$a_1 - - a_n$
N
a – –


main
1
2
3
4
solve()
11
12
13
14
15
16
solve2()
40
41
42
solve2()
return


solve
42
41
solve 2
1

20

2 5 11 17

bit ^ 1 → !bit

1 ^ 1 = 0

0 ^ 1 = 1