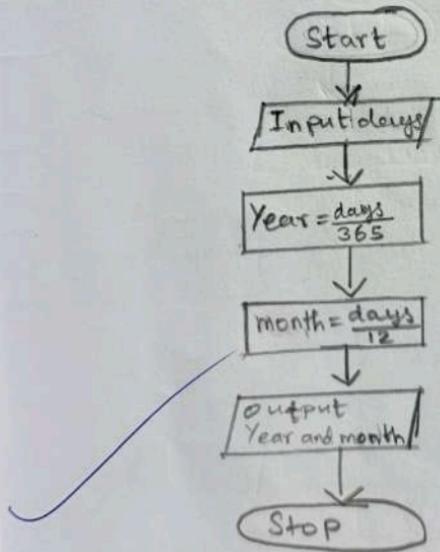


Write an Algorithm and draw a Flowchart to convert the given days into years & months.

Algorithm:

- 1) Program starts
- 2) Input days
- 3) To find year value, divide the days value by 365
- 4) To find the month value, divide the days value by 12.
- 5) Print the year and month.
- 6) Program stops

Flowchart:



WEEK 0

Name: C.Gurucharan

Reg.no:240801092

Dept: ECE-'B'

Write an Algorithm and draw a Flowchart to check whether the given number is Prime or not.

Algorithm:

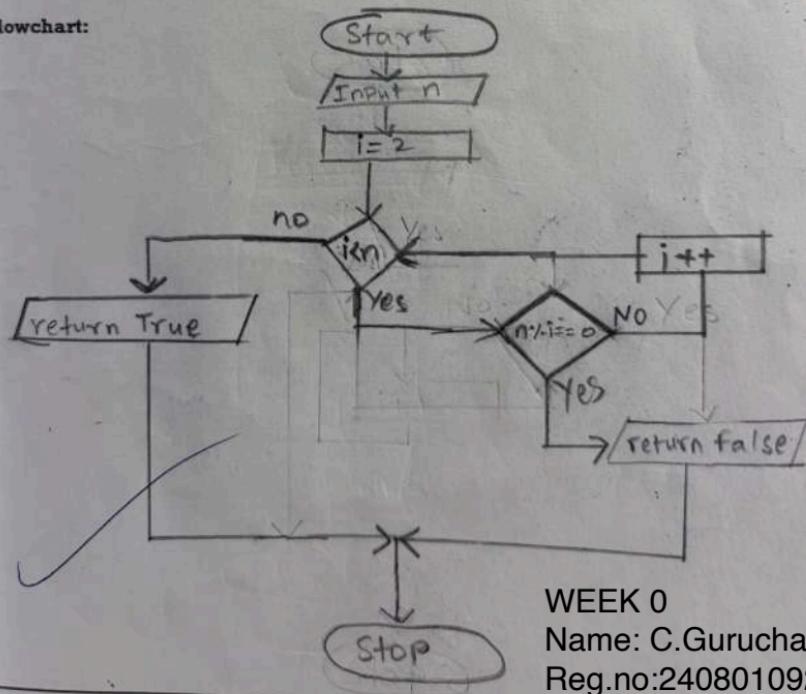
1) Program Starts

2) Input n

3) If n is divisible by ~~any other~~ number greater by any number except 1 and the number itself, then it is not prime. Otherwise, it is prime number.

4) Program Stops.

Flowchart:



WEEK 0

Name: C.Gurucharan

Reg.no:240801092

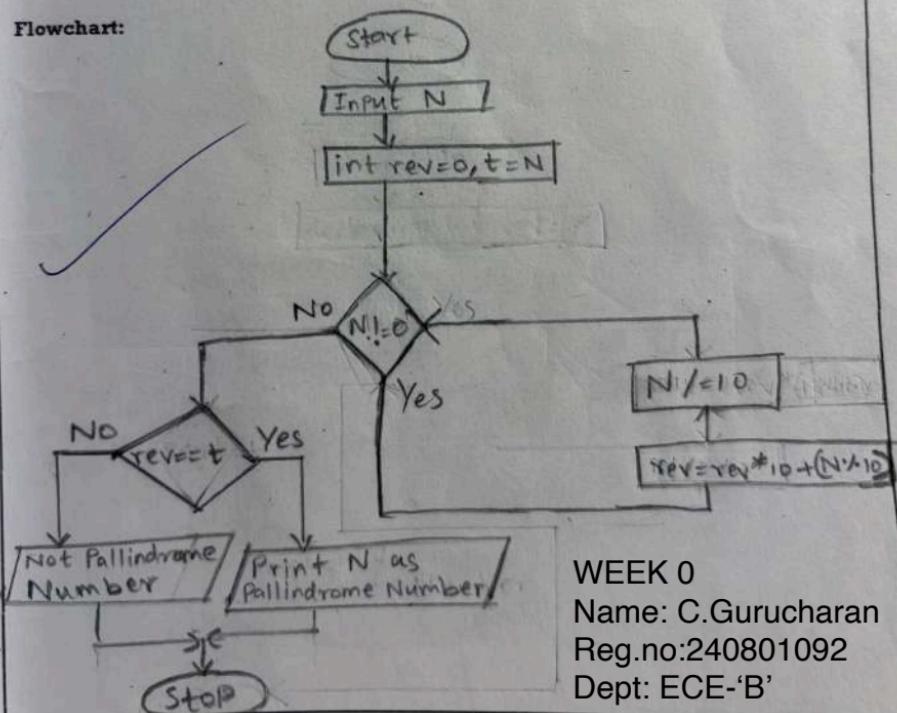
Dept: ECE-'B'

Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

**Algorithm:**

- 1) Program starts
- 2) Input N
- 3) Using while loop, iterate over each digit and check whether the first and last digit is equal. This can be done by finding the reverse.
- 4) If Yes, then it is a pallindrome number.
- 5) If no, then it is not a pallindrome number.
- 6) Program stops.

**Flowchart:**



WEEK 0

Name: C.Gurucharan

Reg.no:240801092

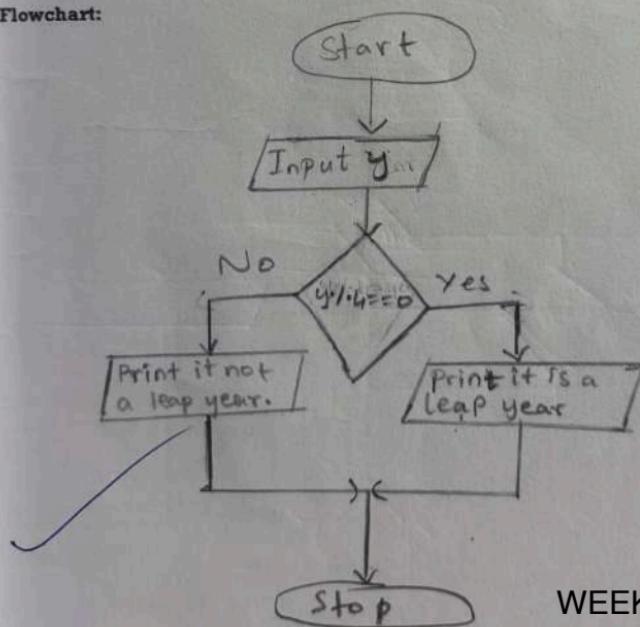
Dept: ECE-'B'

Write an Algorithm and draw a Flowchart to check whether the given year is Leap year or not.

Algorithm:

- 1) Program starts
- 2) Input the year value
- 3) Check if the year is divisible by 4.
- 4) If Yes, it is a leap year.
- 5) If no, it is not a leap year.
- 6) Program stops

Flowchart:



WEEK 0

Name: C.Gurucharan

Reg.no:240801092

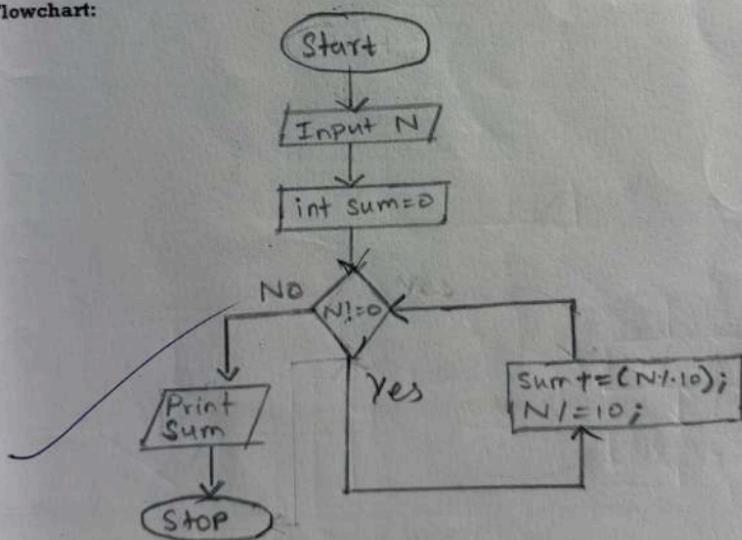
Dept: ECE 'B'

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

**Algorithm:**

- 1) Program starts
- 2) Input N and declare the sum=0.
- 3) Using while loop, iterate over each digit and find the sum of the digits.
- 4) Print the sum of the digits.
- 5) Program stops.

**Flowchart:**



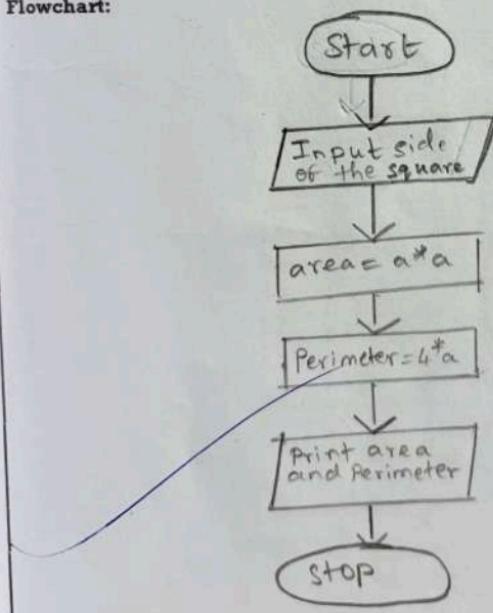
**WEEK 0**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

Write an Algorithm and draw a Flowchart to Calculate the area and perimeter of a square.

Algorithm:

- 1) Program starts.
- 2) Asking the user to enter the side of the square.
- 3) Calculating the area and the perimeter of the square.
- 4) Printing the area and the perimeter.
- 5) Program stops.

Flowchart:



WEEK 0

Name: C.Gurucharan

Reg.no:240801092

Dept: ECE-'B'

```
1 #include <stdio.h>
2 int main()
3 {
4     printf("Hello, World!");
5 }
6
```

	Expected	Got	
✓	Hello, World!	Hello, World!	✓

Passed all tests! ✓

**WEEK 1**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include <stdio.h>
2 int main()
3 {
4     char ch;
5     scanf("%c",&ch);
6     printf("%s",&ch);
7 }
```

	Input	Expected	Got	
✓	c	c	c	✓

Passed all tests! ✓

WEEK 1  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE -'B'

```

1 #include <stdio.h>
2 int main()
3 {
4     int i1,i2;
5     float f1,f2;
6     scanf("%d %d",&i1,&i2);
7     scanf("%f %f",&f1,&f2);
8     printf("%d %d\n", (i1+i2), (i1-i2));
9     printf("%.1f %.1f", (f1+f2), (f1-f2));
10 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	10 4 4.0 2.0	14 6 6.0 2.0	14 6 6.0 2.0	✓
✓	20 8 8.0 4.0	28 12 12.0 4.0	28 12 12.0 4.0	✓

Passed all tests! ✓

WEEK 1  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include <stdio.h>
2 int main()
3 {
4     char n;
5     int a,b,c;
6     scanf("%c",&n);
7     scanf("%d %d %d",&a,&b,&c);
8     printf("%c\n%d",n,((a+b+c)/3));
9 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	A 3 4 6	A 4	A 4	✓
✓	T 7 3 8	T 6	T 6	✓
✓	R 0 100 99	R 66	R 66	✓

**WEEK 1**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

Passed all tests! ✓

```

1 #include <stdio.h>
2 int main(){
3     int i;
4     long l;
5     char c;
6     float f;
7     double d;
8     scanf("%d %ld %c %f %lf",&i,&l,&c,&f,&d);
9     printf("%d\n%ld\n%c\n%0.3f\n%0.9lf",i,l,c,f,d);
10 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3 12345678912345 a 334.23 14049.30493	3 12345678912345 a 334.230 14049.304930000	3 12345678912345 a 334.230 14049.304930000	✓

Passed all tests! ✓

**WEEK 1**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```
1 #include <stdio.h>
2 int main(){
3     char c;
4     scanf("%c",&c);
5     printf("%d\n",c);
6     printf("%c %c", (c-1), (c+1));
7 }
```

	Input	Expected	Got	
✓	E	69 D F	69 D F	✓

Passed all tests! ✓

WEEK 1  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     float f,i;
4     scanf("%f\n%f",&f,&i);
5     printf("%0.2f",(((f*12)+i)*2.54));
6 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5	167.64	167.64	✓
	6			

Passed all tests! ✓

WEEK 2  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     int a,b;
4     scanf("%d\n%d", &a, &b);
5     printf("%d\n%d\n%d\n%d\n%d", (a+b), (a-b), (a*b), (a/b), (a%b));
6 }
```

	Input	Expected	Got	
✓	100	106	106	✓
	6	94	94	
		600	600	
		16	16	
		4	4	

Passed all tests! ✓

WEEK 2  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     float a;
4     scanf("%f",&a);
5     printf("Regular price: %.2f\nDiscount: %.2f\nTotal: %.2f", (a*3.49), (((a*3.49)*60)/100), ((a*3.49)-((a*3.49)*60)/100));
6 }
```

	Input	Expected	Got	
✓	10	Regular price: 34.90 Discount: 20.94 Total: 13.96	Regular price: 34.90 Discount: 20.94 Total: 13.96	✓

Passed all tests! ✓

**WEEK 2**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```
1 #include<stdio.h>
2 int main(){
3     int X,Y;
4     scanf("%d\n%d",&X,&Y);
5     if(X<=Y) printf("YES");
6     else printf("NO");
7 }
```

	Input	Expected	Got	
✓	100 110	YES	YES	✓
✓	100 90	NO	NO	✓

Passed all tests! ✓

WEEK 2  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     int N;
4     scanf("%d",&N);
5     printf("%d",((N*(N-1))/2));
6 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	1	0	0	✓
✓	2	1	1	✓

Passed all tests! ✓

**WEEK 2**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     int a,b,c;
4     scanf("%d %d %d",&a,&b,&c);
5     if(a>b&&a>c) printf("%d",a);
6     else if(b>a&&b>c) printf("%d",b);
7     else printf("%d",c);
8 }
```

	Input	Expected	Got	
✓	81 26 15	81	81	✓

Passed all tests! ✓

WEEK 2  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     int a,b;
4     scanf("%d %d",&a,&b);
5     if(a%10==b%10) printf("true");
6     else printf("false");
7 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	25 53	false	false	✓
✓	27 77	true	true	✓

Passed all tests! ✓

**WEEK 3**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int a;
4     scanf("%d",&a);
5     if(a%2!=0) printf("Weird");
6     else if(a>=2&&a<6) printf("Not Weird");
7     else if(a>5&&a<21) printf("Weird");
8     else printf("Not Weird");
9 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3	Weird	Weird	✓
✓	24	Not Weird	Not Weird	✓

Passed all tests! ✓

**WEEK 3**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int a,b,c;
4     scanf("%d %d %d",&a,&b,&c);
5     if((a*a)+(c*c)==(b*b)|| (a*a)+(b*b)==(c*c)|| (b*b)+(c*c)==(a*a)) printf("yes");
6     else printf("no");
7 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓

**WEEK 3**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     if(n>10||n<3) {printf("The number of sides is not supported.");}
6     else{
7         char* shapes[8]={"Triangle","Rectangle","Pentagon","Hexagon","Heptagon","Octagon","Nonagon","Decagon"};
8         printf("%s",shapes[n-3]);}
9
10 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3	Triangle	Triangle	✓
✓	7	Heptagon	Heptagon	✓
✓	11	The number of sides is not supported.	The number of sides is not supported.	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

**WEEK 3**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int n,start_year=2000;
4     char* a[12]={"Dragon","Snake","Horse","Sheep","Monkey","Rooster","Dog","Pig","Rat","0x","Tiger","Hare"};
5     scanf("%d",&n);
6     int index=(n-start_year)%12;
7     if(index<0) index+=12;
8     printf("%s",a[index]);
9 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2004	Monkey	Monkey	✓
✓	2010	Tiger	Tiger	✓

Passed all tests! ✓

**WEEK 3**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     char col;
4     int row;
5     scanf("%c%d",&col,&row);
6     if(((col-'a')+row)%2!=0) printf("The square is black.");
7     else printf("The square is white.");
8 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	a 1	The square is black.	The square is black.	✓
✓	d 5	The square is white.	The square is white.	✓

Passed all tests! ✓

**WEEK 3**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int d,m,y,N=0,i;
4     int c[12]={31,28,31,30,31,30,31,31,30,31,30,31};
5     scanf("%d\n%d\n%d",&d,&m,&y);
6     if((y%4==0)&&((y%400==0)|| (y%100!=0))){
7         c[1]=29;
8     }
9     for(i=0;i<m-1;i++){
10         N+=c[i];
11     }
12     printf("%d", (N+d));
13 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	18 6 2020	170	170	✓

Passed all tests! ✓

WEEK 3  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     char d;
4     int s1,s2,a=0;
5     scanf("%c\n%d\n%d",&d,&s1,&s2);
6     switch(d){
7         case 'R':
8             a=s1*s2;
9             break;
10        case 'S':
11            a=(s1*s2)/2;
12            break;
13        case 'T':
14            a=s1*s2;
15            break;
16        default:
17            a=0;
18    }
19    printf("%d",a);
20 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	T 10 20	200	200	✓
✓	S 30 40	600	600	✓
✓	B 2 11	0	0	✓
✓	R 10 30	300	300	✓
✓	S 40 50	1000	1000	✓

**WEEK 3**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int n,i;
4     char* d[10]={"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Kryptondy", "Coluday", "Daxamday"};
5     scanf("%d",&n);
6     if(n>296) i=(n-296)%10;
7     else i=n%10;
8     printf("%s",d[i]);
9 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	7	Kryptondy	Kryptonday	✓
✓	1	Monday	Monday	✓

Passed all tests! ✓

**WEEK 3**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int n,m,c,c1=0,co;
4     scanf("%d",&n);
5     int arr[n];
6     for(int a=0;a<n;a++){
7         scanf("%d",&arr[a]);
8     }
9     scanf("%d",&m);
10    int brr[m],ans[m];
11    for(int b=0;b<m;b++){
12        scanf("%d",&brr[b]);
13    }
14    for(int j=0;j<m;j++){
15        c=0;
16        for(int i=0;i<n;i++){
17            if(arr[i]==brr[j]){
18                c=1;
19                arr[i]=-1;
20                break;
21            }
22        }
23        if(c==0){
24            ans[c1]=brr[j];
25            c1++;
26        }
27    }
28    for(int a=0;a<c1;a++){
29        co=0;
30        for(int b=0;b<c1;b++){
31            if(ans[b]<ans[a]) co++;
32        }
33        int temp=ans[a];
34        ans[a]=ans[co];
35        ans[co]=temp;
36    }
37    for(int i=0;i<c1;i++) printf("%d ",ans[i]);
38    return 0;
39 }

```

	Input	Expected	Got	
✓	10 203 204 205 206 207 208 203 204 205 206 13 203 204 204 205 206 207 205 208 203 206 205 206 204	204 205 206	204 205 206	✓

Passed all tests! ✓

WEEK 7  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int t,n,Is,rs,m;
4     scanf("%d",&t);
5     for(int i=0;i<t;i++){
6         Is=rs=0;
7         scanf("%d",&n);
8         int arr[n];
9         for(int j=0;j<n;j++) scanf("%d",&arr[j]);
10        m=n/2;
11        if(arr[m]==0){
12            for(m=0;arr[m]==0&&m<n;m++);
13        }
14        for(int j=0;j<=m;j++) Is+=arr[j];
15        for(int j=m;j<n;j++) rs+=arr[j];
16        printf("%s\n",(Is==rs)?"YES":"NO");
17    }
18    return 0;
19 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3 5 1 1 4 1 1 4 2 0 0 0 4 0 0 2 0	YES YES YES YES	YES YES YES	✓
✓	2 3 1 2 3 4 1 2 3 3	NO YES	NO YES	✓

Passed all tests! ✓

**WEEK 7**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1  /*
2   * Complete the 'myFunc' function below.
3   *
4   * The function is expected to return an INTEGER.
5   * The function accepts INTEGER n as parameter.
6   */
7
8 int myFunc(int n)
9 {
10    if(n==2) return 0;
11    while(n>10){
12        if(n%10==0){
13            n/=10;
14        }
15        else if(n%20==0){
16            n/=20;
17        }
18        else return 0;
19    }
20    return 1;
21}
22

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	printf("%d", myFunc(1))	1	1	✓
✓	printf("%d", myFunc(2))	0	0	✓
✓	printf("%d", myFunc(10))	1	1	✓
✓	printf("%d", myFunc(25))	0	0	✓
✓	printf("%d", myFunc(200))	1	1	✓

Passed all tests! ✓

WEEK 12  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1  /*
2   * Complete the 'powerSum' function below.
3   *
4   * The function is expected to return an INTEGER.
5   * The function accepts following parameters:
6   * 1. INTEGER x
7   * 2. INTEGER n
8   */
9 #include<math.h>
10 int powerSum(int x,int m,int n)
11 {
12     if(x==0) return 1;
13     if(x<0||n<1) return 0;
14     int max=(int)pow(m,n);
15     if(m>max) return 0;
16     return powerSum(x-max,m+1,n)+powerSum(x,m+1,n);
17 }

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	printf("%d", powerSum(10, 1, 2))	1	1	✓

Passed all tests! ✓

**WEEK 12**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 /*
2  * Complete the 'balancedSum' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY arr as parameter.
6  */
7
8 int balancedSum(int arr_count, int* arr)
9 {
10     int left_sum=0;
11     int right_sum=0;
12
13     for(int i=0;i<arr_count;i++){
14         right_sum+=arr[i];
15     }
16
17     for(int i=0;i<arr_count;i++){
18         right_sum-=arr[i];
19
20         if(left_sum==right_sum) {
21             return i;
22         }
23
24         left_sum+=arr[i];
25     }
26
27     return -1;
28 }
29

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	int arr[] = {1,2,3,3}; printf("%d", balancedSum(4, arr))	2	2	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

WEEK 13  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 /*
2  * Complete the 'arraySum' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY numbers as parameter.
6  */
7
8 int arraySum(int numbers_count, int *numbers)
9 {
10     int sum=0;
11     for(int i=0;i<numbers_count;i++) sum+=numbers[i];
12     return sum;
13 }
14

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	int arr[] = {1,2,3,4,5}; printf("%d", arraySum(5, arr))	15	15	✓

Passed all tests! ✓

**WEEK 13**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 /*
2  * Complete the 'minDiff' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY arr as parameter.
6  */
7 int compare(const void *a, const void *b){
8     return *(int*)a - *(int*)b;
9 }
10 #include<stdlib.h>
11 int minDiff(int arr_count, int* arr)
12 {
13     qsort(arr, arr_count, sizeof(int), compare);
14     int sum = 0;
15     for(int i = 1; i < arr_count; i++)
16         sum += abs(arr[i] - arr[i - 1]);
17     return sum;
18 }
19

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	int arr[] = {5, 1, 3, 7, 3}; printf("%d", minDiff(5, arr))	6	6	✓

Passed all tests! ✓

**WEEK 13**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     for(int i=0;i<n;i++){
6         int length,width,height;
7         scanf("%d %d %d",&length,&width,&height);
8         if(height<41){
9             int volume=length*width*height;
10            printf("%d\n",volume);
11        }
12    }
13    return 0;
14 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	4	125	125	✓
	5 5 5	80	80	
	1 2 40			
	10 5 41			
	7 2 42			

**WEEK 14**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

Passed all tests! ✓

```

1 #include<stdio.h>
2 #include<math.h>
3 #include<stdlib.h>
4 struct Triangle{
5     int a,b,c;
6     double area;
7 };
8 int compareTriangles(const void *p1,const void *p2){
9     struct Triangle *t1=(struct Triangle *)p1;
10    struct Triangle *t2=(struct Triangle *)p2;
11    if(t1->area<t2->area){
12        return -1;
13    }
14    else if(t1->area>t2->area) return 1;
15    else return 0;
16 }
17 double calculateArea(int a,int b,int c){
18     double s=(a+b+c)/2.0;
19     return sqrt(s*(s-a)*(s-b)*(s-c));
20 }
21 int main(){
22     int n;
23     scanf("%d",&n);
24     struct Triangle triangles[n];
25     for(int i=0;i<n;i++){
26         scanf("%d %d %d",&triangles[i].a,&triangles[i].b,&triangles[i].c);
27         triangles[i].area=calculateArea(triangles[i].a,triangles[i].b,triangles[i].c);
28     }
29     qsort(triangles,n,sizeof(struct Triangle),compareTriangles);
30     for(int i=0;i<n;i++){
31         printf("%d %d %d\n",triangles[i].a,triangles[i].b,triangles[i].c);
32     }
33 }
34 }
```

	Input	Expected	Got	
✓	3 7 24 25 5 12 13 3 4 5	3 4 5 5 12 13 7 24 25	3 4 5 5 12 13 7 24 25	✓

Passed all tests! ✓

**WEEK 14**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1, /*
2 * Complete the 'reverseArray' function below.
3 *
4 * The function is expected to return an INTEGER_ARRAY.
5 * The function accepts INTEGER_ARRAY arr as parameter.
6 */
7
8 /*
9 * To return the integer array from the function, you should:
10 *     - Store the size of the array to be returned in the result_count variable
11 *     - Allocate the array statically or dynamically
12 *
13 * For example,
14 * int* return_integer_array_using_static_allocation(int* result_count) {
15 *     *result_count = 5;
16 *
17 *     static int a[5] = {1, 2, 3, 4, 5};
18 *
19 *     return a;
20 * }
21 *
22 * int* return_integer_array_using_dynamic_allocation(int* result_count) {
23 *     *result_count = 5;
24 *
25 *     int *a = malloc(5 * sizeof(int));
26 *
27 *     for (int i = 0; i < 5; i++) {
28 *         *(a + i) = i + 1;
29 *     }
30 *
31 *     return a;
32 * }
33 *
34 */
35 #include<stdio.h>
36 int* reverseArray(int arr_count, int *arr, int *result_count) {
37 *result_count=arr_count;
38 for(int i=0;i<arr_count/2;i++){
39     int temp=arr[i];
40     arr[i]=arr[arr_count-1-i];
41     arr[arr_count-1-i]=temp;
42 }
43 return arr;
44 }
45

```

	Test	Expected	Got	
✓	<pre> int arr[] = {1, 3, 2, 4, 5}; int result_count; int* result = reverseArray(5, arr, &amp;result_count); for (int i = 0; i &lt; result_count; i++)     printf("%d\n", *(result + i)); </pre>	5 4 2 3 1	5 4 2 3 1	✓

**WEEK 15**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1  /*
2  * Complete the 'cutThemAll' function below.
3  *
4  * The function is expected to return a STRING.
5  * The function accepts following parameters:
6  * 1. LONG_INTEGER_ARRAY lengths
7  * 2. LONG_INTEGER minLength
8  */
9
10 /*
11 * To return the string from the function, you should either do static allocation or dynamic allocation
12 *
13 * For example,
14 * char* return_string_using_static_allocation() {
15 *     static char s[] = "static allocation of string";
16 *
17 *     return s;
18 * }
19 *
20 * char* return_string_using_dynamic_allocation() {
21 *     char* s = malloc(100 * sizeof(char));
22 *
23 *     s = "dynamic allocation of string";
24 *
25 *     return s;
26 * }
27 *
28 */
29 char* cutThemAll(int lengths_count, long *lengths, long minLength) {
30 long total_length=0,remaining_length=0;
31 for(int i=0;i<lengths_count;i++){
32     total_length+=lengths[i];
33 }
34 if(total_length<minLength){
35     return "Impossible";
36 }
37 for(int i=0;i<lengths_count-1;i++){
38     remaining_length+=lengths[i];
39 }
40 if(remaining_length<minLength) return "Impossible";
41 return "Possible";
42 }
43

```

	Test	Expected	Got	
✓	long lengths[] = {3, 5, 4, 3}; printf("%s", cutThemAll(4, lengths, 9))	Possible	Possible	✓
✓	long lengths[] = {5, 6, 2}; printf("%s", cutThemAll(3, lengths, 12))	Impossible	Impossible	✓

Passed all tests! ✓

**WEEK 15**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int T,i=0,n,t;
4     scanf("%d",&T);
5     while(i<T){
6         scanf("%d",&n);
7         t=n/4;
8         if(t%2==0&&n%2==0) printf("No\n");
9         else if(t%2==1&&n%2==1) printf("No\n");
10        else printf("Yes\n");
11        i++;
12    }
13 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3	Yes	Yes	✓
	1	Yes	Yes	
	6	No	No	
	7			

Passed all tests! ✓

**WEEK 4**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```
1 #include<stdio.h>
2 int main(){
3     int n,h;
4     int a[10]={1,0,0,0,1,0,1,0,2,1};
5     scanf("%d",&n);
6     while(n!=0){
7         h+=a[n%10];
8         n/=10;
9     }
10    printf("%d",h);
11 }
```

	Input	Expected	Got	
✓	630	2	2	✓
✓	1288	4	4	✓

Passed all tests! ✓

**WEEK 4**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int N;
4     scanf("%d",&N);
5     int c=0,s=0,d=1;
6     while(s<N){
7         s+=d;
8         d*=2;
9         c++;
10    }
11    printf("%d",c);
12 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	10	4	4	✓
✓	5	3	3	✓
✓	20	5	5	✓
✓	500	9	9	✓
✓	1000	10	10	✓

**WEEK 4**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```
1 #include<stdio.h>
2 int main(){
3     int a[50],c=0;
4     for(int i=0;i<sizeof(a);i++){
5         scanf("%d",&a[i]);
6     }
7     for(int i=0;a[i]!=0;i++){
8         if(a[i]%2!=0) c++;
9     }
10    printf("%d",c);
11 }
```

	Input	Expected	Got	
✓	5 10 15 20 25 30 35 40 45 50	5	5	✓

Passed all tests! ✓

WEEK 4  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int N,d,f=0;
4     scanf("%d",&N);
5     for(int i=N;i!=0;i/=10){
6         d=i%10;
7         if(d==2 || d==3 || d==4 || d==5 || d==7){
8             f=1;
9             break;
10        }
11    }
12    if(f==0) printf("true");
13    else printf("false");
14 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	6	true	true	✓
✓	89	true	true	✓
✓	25	false	false	✓

Passed all tests! ✓

WEEK 4  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     long long int n,t,i,nut=0;
4     scanf("%lld\n%lld",&n,&t);
5     for (i=1;i<=n;i++){
6         nut+=i;
7         if(nut==t) nut-=1;
8     }
9     printf("%lld",nut%1000000007);
10 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2 2	3	3	✓
✓	2 1	2	2	✓
✓	3 3	5	5	✓

Passed all tests! ✓

**WEEK 4**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int T;
4     scanf("%d",&T);
5     int s[T];
6     for(int i=0;i<T;i++){
7         scanf("%d",&s[i]);
8     }
9     for(int i=0;i<T;i++){
10        for(int j=0;j<s[i];j++){
11            for(int k=0;k<s[i];k++){
12                if((j+k)%2==0) printf("W");
13                else printf("B");
14            }
15            printf("\n");
16        }
17    }
18 }
```

	Input	Expected	Got	
✓	2	WBW	WBW	✓
	3	BWB	BWB	
	5	WBW WBWBW BWBWB WBWBW BWBWB WBWBW	WBW WBWBW BWBWB WBWBW BWBWB WBWBW	

Passed all tests! ✓

**WEEK 5**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int T,o,z;
4     scanf("%d",&T);
5     char c, x[T];
6     int s[T];
7     for(int i=0;i<T;i++){
8         scanf("%d %c",&s[i],&x[i]);
9     }
10    for(int i=0;i<T;i++){
11        for(int j=0;j<s[i];j++){
12            z=(x[i]=='W')?0:1;
13            o=(j%2==z)?0:1;
14            for(int k=0;k<s[i];k++){
15                c=(k%2==o)?'W':'B';
16                printf("%c",c);
17            }
18            printf("\n");
19        }
20    }
21 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2	WB	WB	✓
	2 W	BW	BW	
	3 B	BWB	BWB	
		WBW	WBW	
		BWB	BWB	

**WEEK 5**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int n,v,p3,c,in,i,i1,i2,t,ti;
4     scanf("%d",&t);
5     for(ti=0;ti<t;ti++){
6         v=0;
7         scanf("%d",&n);
8         printf("Case #%-d\n",ti+1);
9         for(i=0;i<n;i++){
10            c=0;
11            if(i>0){
12                for(i1=0;i1<i;i1++) printf("**");
13            }
14            for(i1=i;i1<n;i1++){
15                if(i>0) c++;
16                printf("%d0",++v);
17            }
18            if(i==0){
19                p3=v+(v*(v-1))+1;
20                in=p3;
21            }
22            in=in-c;
23            p3=in;
24            for(i2=i;i2<n;i2++){
25                printf("%d",p3++);
26                if(i2!=n-1) printf("0");
27            }printf("\n");
28        }
29    }
30 }

```

	Input	Expected	Got	
✓	3 3 4 5	Case #1 10203010011012 **4050809 ****607 Case #2 1020304017018019020 **50607014015016 ****809012013 *****10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 *****13014017018 *****15016	Case #1 10203010011012 **4050809 ****607 Case #2 1020304017018019020 **50607014015016 ****809012013 *****10011 Case #3 102030405026027028029030 **6070809022023024025 ****10011012019020021 *****13014017018 *****15016	✓

Passed all tests! ✓

**WEEK 5**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<math.h>
3 int main(){
4     int N,s=0;
5     double sum=0;
6     scanf("%d",&N);
7     for(int i=N;i!=0;i/=10) s++;
8     for(int i=N;i!=0;i/=10){
9         sum+=pow(i%10,s);
10    }
11    if(sum==N) printf("true");
12    else printf("false");
13 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	153	true	true	✓
✓	123	false	false	✓

Passed all tests! ✓

**WEEK 5**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<math.h>
3 int rev(int n){
4     int r=0;
5     for(int i=n;i!=0;i/=10){
6         r=(r*10)+i%10;
7     }
8     return r;
9 }
10 int check_palin(int n){
11     if(rev(n)==n) return 1;
12     else return 0;
13 }
14 int sum(int n){
15     return rev(n)+n;
16 }
17
18 int main(){
19     int n,s=0,i;
20     scanf("%d",&n);
21     for(i=n;check_palin(i)!=1;i=s){
22         s=sum(i);
23     }
24     printf("%d",i);
25 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	32	55	55	✓
✓	789	66066	66066	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

## WEEK 5

Name: C.Gurucharan

Reg.no:240801092

Dept: ECE-'B'

```

1 #include<stdio.h>
2 int check(int n){
3     for(int i=n;i>0;i/=10){
4         if(i%10!=3&&i%10!=4) return 0;
5     }
6     return 1;
7 }
8 int main(){
9     int n,c=0,i=1;
10    scanf("%d",&n);
11    for(;c<n;i++){
12        if(check(i)){
13            c++;
14        }
15    }
16    printf("%d",i-1);
17 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	34	33344	33344	✓

Passed all tests! ✓

WEEK 5  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int a[4],T,k,f=0;
4     scanf("%d",&T);
5     for(int i=0;i<4;i++){
6         scanf("%d",&a[i]);
7     }
8     scanf("%d",&k);
9     for(int l=0;l<T;l++){
10    for(int i=0;i<4;i++){
11        for(int j=0;j<4;j++){
12            if((a[i]-a[j]==k){
13                f=1;
14                break;
15            }
16        }
17    }
18 }
19 printf("%d",f);
20 }
```

	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓
✓	1 3 1 3 5 99	0	0	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

WEEK 6  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 /*int calculate(arr){
3     int c=0;
4     for(int i=0;i<sizeof(arr);i++){
5         for(int j=1;j<=arr[i];j++){
6             if(j%2!=0) c+=j;
7         }
8     }
9     return c;
10 }*/
11 int main(){
12     int T,c;
13     scanf("%d",&T);
14     int arr[T];
15     for(int i=0;i<T;i++)
16         scanf("%d",&arr[i]);
17     for(int i=0;i<T;i++){
18         c=0;
19         for(int j=1;j<=arr[i];j++){
20             if(j%2!=0) c+=j;
21         }
22         printf("%d\n",c);
23     }
24 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3	1	1	✓
	1	1	1	
	2	4	4	
	3			
✓	10	1296	1296	✓
	71	2500	2500	
	100	1849	1849	
	86	729	729	
	54	400	400	
	40	25	25	
	9	1521	1521	
	77	25	25	
	9	49	49	
	13	2401	2401	
	98			

**WEEK 6**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int n,m,c;
4     scanf("%d",&n);
5     int a[n];
6     for(int i=0;i<n;i++) scanf("%d",&a[i]);
7     scanf("%d",&m);
8     int b[m];
9     for(int i=0;i<m;i++) scanf("%d",&b[i]);
10    for(int i=0;i<m;i++){
11        c=0;
12        for(int j=0;j<n;j++){
13            if(a[j]<=b[i]) c++;
14        }
15        printf("%d\n",c);
16    }
17 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	4 1 4 2 4 2 3 5	2 4	2	✓
✓	5 2 10 5 4 8 4 3 1 7 8	1 0 3 4	1 0 3 4	✓

**WEEK 6**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int t;
4     scanf("%d",&t);
5     //int arr[t];
6     for(int i=0;i<t;i++){
7         int m;
8         int n;
9         scanf("%d",&m);
10        scanf("%d",&n);
11        int a[n];
12        for(int j=0;j<n;j++){
13            scanf("%d",&a[j]);
14        }
15
16        /*else {
17            int b[n];
18            for(int p=0;p<n;p++){
19                scanf("%d",&b[p]);
20            }
21        }*/
22        for(int k=0;k<n;k++){
23            int l=k+1;
24            while(l<n){
25                if((a[k]+a[l]==m) printf("%d %d",k+1,l+1);
26                l++;
27            }
28            printf("\n");
29        }
30    }
}

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2 4 5 1 4 5 3 2 4 4 2 2 4 3	1 4 1 2  	1 4 1 2  	✓

**WEEK 7**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int t;
4     scanf("%d",&t);
5     while(t--){
6         int n,m,d,min,temp;
7         scanf("%d %d",&n,&m);
8         d=n-m;
9         int arr[n];
10    for(int i=0;i<n;i++){
11        scanf("%d",&arr[i]);
12    }
13    for(int j=0;j<n;j++){
14        min=j;
15        for(int k=j;k<n;k++){
16            if(arr[k]<arr[min]) min=k;
17        }
18        temp=arr[min];
19        arr[min]=arr[j];
20        arr[j]=temp;
21    }
22    int maxsum=0,minsum=0;
23    for(int a=0;a<d;a++){
24        minsum+=arr[a];
25    }
26    for(int b=n-1;b>m-1;b--) maxsum+=arr[b];
27    printf("%d",maxsum-minsum);
28 }
29 }
```

	Input	Expected	Got	
✓	1 5 1 1 2 3 4 5	4	4	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

**WEEK 8**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int n,min1,min2,temp,flag=1;
4     scanf("%d",&n);
5     int vac[n],pat[n];
6     for(int i=0;i<n;i++) scanf("%d",&vac[i]);
7     for(int i=0;i<n;i++) scanf("%d",&pat[i]);
8     for(int j=0;j<n-1;j++){
9         min1=j,min2=j;
10        for(int k=j;k<n;k++){
11            if(vac[k]<vac[min1]) min1=k;
12            if(pat[k]<pat[min2]) min2=k;
13        }
14        temp=vac[min1];
15        vac[min1]=vac[j];
16        vac[j]=temp;
17        temp=pat[min2];
18        pat[min2]=pat[j];
19        pat[j]=temp;
20    }
21    for(int i=0;i<n;i++){
22        if(vac[i]<=pat[i]){
23            flag=0;
24            break;
25        }
26    }
27    if(flag==1) printf("Yes");
28    else printf("No");
29 }

```

	Input	Expected	Got	
✓	5 123 146 454 542 456 100 328 248 689 200	No	No	✓

Passed all tests! ✓

**WEEK 8**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int n,c=0;
4     scanf("%d",&n);
5     int a[n];
6     for(int i=0;i<n;i++){
7         scanf("%d",&a[i]);
8     }
9     for(int i=0;i<n-1;i++){
10        for(int j=i+1;j<n;j++){
11            if((a[i]^a[j])==0) c++;
12        }
13    }
14    printf("%d",c);
15 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5 1 3 1 4 3	2	2	✓

Passed all tests! ✓

**WEEK 8**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d",&n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d",&arr[i]);
8     }
9     int max=arr[0];
10    for(int i=1;i<n;i++){
11        if(arr[i]>max) max=arr[i];
12    }
13    max++;
14    int min=0;
15    for(int a=0;a<n;a++){
16        for(int b=0;b<n;b++){
17            if(arr[b]<arr[min]) min=b;
18        }
19        printf("%d ",min);
20        arr[min]=max;
21    }
22 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5 4 5 3 7 1	4 2 0 1 3	4 2 0 1 3	✓

Passed all tests! ✓

WEEK 8  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 int main(){
3     int arr[3][3];
4     for(int i=0;i<3;i++){
5         for(int j=0;j<3;j++) scanf("%d",&arr[i][j]);
6     }
7     int s1=0,s2=0;
8     for(int i=0;i<3;i++){
9         for(int j=0;j<3;j++){
10            if((i+j)%2==0) s1+=arr[i][j];
11            else s2+=arr[i][j];
12        }
13    }
14    printf("%d\n%d",s1,s2);
15 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	1 2 3 4 5 6 7 8 9	25 20	25 20	✓
✓	21 422 423 443 586 645 657 846 904	2591 2356	2591 2356	✓

**WEEK 9**  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

Passed all tests! ✓

```
1 #include<stdio.h>
2 struct data{
3     int gen,int tal;
4 };
5 int main(){
6     int n;
7     scanf("%d",&n);
8     struct data a[n];
9     for(int i=0;i<n;i++) scanf("%d %d",&a[i].gen,&a[i].tal);
10    for(int i=0;i<n-1;i++){
11        for(int j=0;j<n-i-1;j++){
12            if(a[j].tal<a[j+1].tal){
13                struct data temp=a[j];
14                a[j]=a[j+1];
15                a[j+1]=temp;
16            }
17        }
18    }
19    for(int i=0;i<n;i++){
20        if(a[i].gen==0) printf("%d ",a[i].tal);
21    }
22    for(int i=0;i<n;i++){
23        if(a[i].gen==1) printf("%d ",a[i].tal);
24    }
25 }
```

WEEK 9  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5 0 3 1 6 0 2 0 7 1 15	7 3 2 15 6	7 3 2 15 6	✓
✓	6 0 1 0 26 0 39 0 37 0 7 0 13	39 37 26 13 7 1	39 37 26 13 7 1	✓
✓	12 1 12 1 14 1 18 1 1 1 2 1 3 1 5 1 8 1 9 1 10 0 29 0 31	31 29 18 14 12 10 9 8 5 3 2 1	31 29 18 14 12 10 9 8 5 3 2 1	✓
✓	12 0 12 1 12 0 12 1 12 0 12 0 12 1 12 0 12 1 12 1 12 0 12 1 12	12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12	✓

**WEEK 9**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 int main(){
3     int i,j,n,x1,x2,y1,y2,t=0;
4     long long total=0;
5     int arr[1001][1001]={0};
6     scanf("%d",&n);
7     while(n--){
8         scanf("%d %d %d %d",&x1,&y1,&x2,&y2,&t);
9         for(i=x1;i<=x2;i++){
10            for(j=y1;j<=y2;j++){
11                if(arr[i][j]==0) arr[i][j]+=t;
12                else if(arr[i][j]>0) arr[i][j]=(-1)*(arr[i][j]+t);
13                else if(arr[i][j]<0) arr[i][j]-=t;
14            }
15        }
16    }
17    for(i=1;i<1001;i++){
18        for(j=1;j<1001;j++){
19            if(arr[i][j]<0) total+=arr[i][j];
20        }
21    }
22    printf("%lld\n",(-1)*total);
23 }
```

	Input	Expected	Got	
✓	3 1 4 4 6 1 4 3 6 6 2 2 2 5 4 3	35	35	✓
✓	1 48 12 49 27 8	0	0	✓
✓	3 88 34 99 76 44 82 65 94 100 81 58 16 65 66 7	10500	10500	✓

Passed all tests! ✓

**WEEK 9**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char a[1000];
5     scanf("%s",a);
6     for(char i=48;i<58;i++){
7         int f=0;
8         for(int j=0;j<strlen(a);j++){
9             if(a[j]==i){
10                 f++;
11             }
12         }
13         printf("%d ",f);
14     }
15 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	a11472o5t6	0 2 1 0 1 1 1 1 0 0	0 2 1 0 1 1 1 1 0 0	✓
✓	lw4n88j12n1	0 2 1 0 1 0 0 0 2 0	0 2 1 0 1 0 0 0 2 0	✓
✓	1v88886l256338ar0ekk	1 1 1 2 0 1 2 0 5 0	1 1 1 2 0 1 2 0 5 0	✓

Passed all tests! ✓

**WEEK 10**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int t;
5     scanf("%d",&t);
6     for(int i=0;i<t;i++){
7         char a[100000];
8         scanf("%s",a);
9         int f=0;
10        for(int j=0;j<strlen(a);j++){
11            if(a[j]=='A'||a[j]=='E'||a[j]=='I'||a[j]=='O'||a[j]=='U'||a[j]=='a'||a[j]=='e'||a[j]=='o'||a[j]=='i'||a[j]=='u'){
12                f++;
13            }
14        }
15        printf("%d\n",f);
16    }
17 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	2 nBBZLaosnm JHkIsnZtTL	2 1	2 1	✓
✓	2 nBBZLaosnm JHkIsnZtTL	2 1	2 1	✓

Passed all tests! ✓

**WEEK 10**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char s[100];
5     scanf("%[^\\n]*c",s);
6     for(int i=0;i<strlen(s);i++){
7         if(s[i]!=' '){
8             printf("%c",s[i]);
9         }
10        else{
11            printf("\n");
12        }
13    }
14 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	This is C	This is C	This is C	✓
✓	Learning C is fun	Learning C is fun	Learning C is fun	✓

Passed all tests! ✓

**WEEK 10**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char a[100],b[100];
5     scanf("%s\n%s",a,b);
6     printf("%ld %ld\n",strlen(a),strlen(b));
7     char c[strlen(a)+strlen(b)];
8     strcpy(c,a);
9     strcat(c,b);
10    printf("%s\n",c);
11    printf("%c",b[0]);
12    for(int i=1;i<strlen(a);i++) printf("%c",a[i]);
13    printf(" ");
14    printf("%c",a[0]);
15    for(int i=1;i<strlen(b);i++){
16        printf("%c",b[i]);
17    }
18 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	abcd ef	4 2 abcdef ebcd af	4 2 abcdef ebcd af	✓

Passed all tests! ✓

**WEEK 10**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char str1[1000000],str2[1000000];
5     int f=1;
6     scanf("%s\n%s",str1,str2);
7     if(strlen(str1)==strlen(str2)){
8         for(int i=strlen(str1)-1;i>=0;i--){
9             while(str1[i]!=str2[i]){
10                 for(int j=0;j<=i;j++){
11                     if(str1[j]<'z') str1[j]++;
12                 else{
13                     f=0;break;}
14                 if(f==0) break;
15             }
16         }
17     }
18     else f=0;
19     if(f==0) printf("NO\n");
20     else printf("YES\n");
21 }

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	abaca cdbda	YES	YES	✓

Passed all tests! ✓

WEEK 11  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int n,flag=0;
5     char temp;
6     scanf("%d",&n);
7     if(n>100||n<1) return 0;
8     char words[n][14];
9     for(int i=0;i<n;i++){
10         scanf("%s",words[i]);
11     }
12     char reverse[14];
13     for(int i=0;i<n-1;i++){
14         strcpy(reverse,words[i]);
15         int size=strlen(reverse);
16         for(int k=0;k<size/2;k++){
17             temp=reverse[k];
18             reverse[k]=reverse[size-k-1];
19             reverse[size-k-1]=temp;
20         }
21         for(int j=i+1;j<n;j++){
22             if(strcmp(reverse,words[i])==0){
23                 flag=1;
24                 break;
25             }
26             if(flag==1) break;
27         }
28         int len=strlen(reverse);
29         printf("%d %c",len,reverse[len/2]);
30     }
31     return 0;
32 }
33 }

```

	Input	Expected	Got	
✓	4 abc def feg cba	3 b	3 b	✓

Your code failed one or more hidden tests.

Your code must pass all tests to earn any marks. Try again.

**WEEK 11**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int n;
5     scanf("%d",&n);
6     char res[n][21];
7     int rate[n];
8     for(int i=0;i<n;i++){
9         scanf("%s",res[i]);
10        scanf("%d",&rate[i]);
11    }
12    int max=rate[0];
13    char ans[20];
14    strcpy(ans,res[0]);
15    for(int i=1;i<n;i++){
16        if(rate[i]>max){
17            max=rate[i];
18            strcpy(ans,res[i]);
19        }
20
21    else if(rate[i]==max){
22        if(strcmp(res[i],ans)<0) strcpy(ans,res[i]);
23    }
24    }
25    printf("%s",ans);
26    return 0;
27 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3 Pizzeria 108 Dominos 145 Pizzapizza 49	Dominos	Dominos	✓

**WEEK 11**  
**Name: C.Gurucharan**  
**Reg.no:240801092**  
**Dept: ECE-'B'**

Passed all tests! ✓

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int t;
5     scanf("%d",&t);
6     while(t--){
7         int flag=1;
8         char s[10000];
9         scanf("%s",s);
10        int k=strlen(s);
11        if(k==10){
12            for(int i=0;i<10;i++){
13                if(s[0]=='0'){
14                    flag=0;
15                    break;
16                }
17                if(s[i]<'0' || s[i]>'9'){
18                    flag=0;
19                    break;
20                }
21            }
22        }
23        else flag=0;
24
25        if(flag==1) printf("YES\n");
26        else printf("NO\n");
27    }
}

```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	3 1234567890	YES NO	YES NO	✓
	0123456789	NO	NO	
	0123456.87			

Passed all tests! ✓

WEEK 11  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1  /*
2   * Complete the 'fourthBit' function below.
3   *
4   * The function is expected to return an INTEGER.
5   * The function accepts INTEGER number as parameter.
6   */
7
8 int fourthBit(int number)
9 {
10    int binary[32];
11    int i=0;
12    while(number>0){
13        binary[i]=number%2;
14        number/=2;
15        i++;
16    }
17    if(i>=4) return binary[3];
18    else return 0;
19 }

```

	<b>Test</b>	<b>Expected</b>	<b>Got</b>	
✓	printf("%d", fourthBit(32))	0	0	✓
✓	printf("%d", fourthBit(77))	1	1	✓

Passed all tests! ✓

WEEK 12  
Name: C.Gurucharan  
Reg.no:240801092  
Dept: ECE-'B'

```

1  /*
2   * Complete the 'pthFactor' function below.
3   *
4   * The function is expected to return a LONG_INTEGER.
5   * The function accepts following parameters:
6   * 1. LONG_INTEGER n
7   * 2. LONG_INTEGER p
8   */
9
10 long pthFactor(long n, long p)
11 {
12     int count=0;
13     for(long i=1;i<=n;++i){
14         if(n%i==0){
15             count++;
16             if(count==p) return i;
17         }
18     }
19     return 0;
20 }
```

Test	Expected	Got	
✓ printf("%ld", pthFactor(10, 3))	5	5	✓
✓ printf("%ld", pthFactor(10, 5))	0	0	✓
✓ printf("%ld", pthFactor(1, 1))	1	1	✓

Passed all tests! ✓

**WEEK 12**  
 Name: C.Gurucharan  
 Reg.no:240801092  
 Dept: ECE-'B'