



**INSTITUT DE TECHNOLOGIE DU CAMBODGE**

***ASSIGNMENT TP4  
ALGORITHM AND PROGRAMMING***

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## Ex1:

```
TP4 > C Ex1.c > main()
1  #include<stdio.h>
2
3  main(){
4      int num;
5      printf("Please Input your Number: ");
6      scanf("%d",&num);
7      if (num>=0){
8          printf("%d is the positive number",num);
9      }
10     else{
11         printf("%d is the negative number",num);
12     }
13
14 }
```

PROBLEMS OUTPUT **TERMINAL** DEBUG CONSOLE C/C++ Compile Run - TP4 + - □ ⌵ ×

```
cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
./"Ex1"
macbookair@MacBookAirs-Air algorithm&programming % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex1"
Please Input your Number: 2
2 is the positive number
macbookair@MacBookAirs-Air TP4 % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex1"
Please Input your Number: -3
-3 is the negative number
```

Ex2:

```
TP4 > C Ex2.c > main()
1  #include<stdio.h>
2
3  main(){
4      int num;
5      printf("Please Input your Number: ");
6      scanf("%d",&num);
7      if (num%2==0){
8          printf("%d is the even number.\n",num);
9      }
10     else{
11         printf("%d is the odd number.\n",num);
12     }
13 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

C/C++ Compile Run - TP4 + - □ □ ^ ×

```
cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
./"Ex2"
macbookair@MacBookAirs-Air algorithm&programming % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex2"
Please Input your Number: 2
2 is the even number.
macbookair@MacBookAirs-Air TP4 % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex2"
Please Input your Number: 3
3 is the odd number.
```

## Ex3:

```
TP4 > C Ex3.c > main()
1  #include<stdio.h>
2
3  main(){
4      int n1,n2,n3,n4,n5,n6,n7,minimum;
5      printf("Please Input the first number: ");
6      scanf("%d",&n1);
7      printf("Please Input the second number: ");
8      scanf("%d",&n2);
9      printf("Please Input the third number: ");
10     scanf("%d",&n3);
11     printf("Please Input the fourth number: ");
12     scanf("%d",&n4);
13     printf("Please Input the fifth number: ");
14     scanf("%d",&n5);
15     printf("Please Input the sixth number: ");
16     scanf("%d",&n6);
17     printf("Please Input the seventh number: ");
18     scanf("%d",&n7);
19     minimum=n1;
20     if (minimum>n1){
21         minimum=n1;
22     }
23     if (minimum>n2){
24         minimum=n2;
25     }
26     if (minimum>n3){
27         minimum=n3;
28     }
29     if (minimum>n4){
30         minimum=n4;
31     }
32     if (minimum>n5){
33         minimum=n5;
34     }
35     if (minimum>n6){
36         minimum=n6;
37     }
38     if (minimum>n7){
39         minimum=n7;
40     }
41     printf("The minimum number is %d",minimum);
42 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

C/C++ Compile Run - TP4

```
cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
./"Ex3"
macbookair@MacBookAirs-Air algorithm&programming % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex3"
Please Input the first number: 1
Please Input the second number: 2
Please Input the third number: -4
Please Input the fourth number: -3
Please Input the fifth number: -5
Please Input the sixth number: -3
Please Input the seventh number: 2
The minimum number is -5
```

## Ex4:

```
TP4 > C Ex4.c > main()
1  #include<stdio.h>
2  #include<math.h>
3  int main (){
4      double x1,x2 , delta;
5      int a, b, c;
6      printf("Enter Your value of a:" );
7      scanf("%d", &a);
8      printf("Enter Your value of b:" );
9      scanf("%d", &b);
10     printf("Enter Your value of c:" );
11     scanf("%d",&c);
12     delta = b*b - 4*a*c;
13     if(delta>0){
14         x1= (-b+sqrt(delta))/(2*a);
15         x2= (-b-sqrt(delta))/(2*a);
16         printf("x1=%.1f ,x2=%.1f", x1,x2);
17     }else if (delta==0){
18         x1=x2 = (-b/(2*a));
19         printf("x1=x2 = %.1f", x1);
20     }else{
21         printf("The equation have no roots");
22     }
23 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

C/C++ Compile Run - TP4

```
cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
./"Ex4"
macbookair@MacBookAirs-Air algorithm&programming % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex4"
Enter Your value of a:1
Enter Your value of b:4
Enter Your value of c:3
x1=-1.0 ,x2=-3.0
```

## Ex5:

```
TP4 > C Ex5.c > main()
1 //===== EX5
2 #include<stdio.h>
3
4 main(){
5     char gender;
6     char name[20];
7     float salary,tax;
8
9     printf("Input your gender(M/F) : "); scanf("%c",&gender);
10    printf("Input your name : "); scanf("%s",&name);
11    printf("Input your salary($) : "); scanf("%f",&salary);
12
13    if (gender=='M'|gender=='m'){
14        if (salary>300){
15            tax=(salary/100.0)*10;
16        }
17        else if (salary>=200){
18            tax=(salary/100.0)*5;
19        }
20        else {
21            tax=0;
22        }
23    }
24 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

C/C++ Compile Run - TP4

```
cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
./"Ex5"
macbookair@MacBookAirs-Air algorithm&programming % cd "/Users/macbookair/Desktop/algorithm&programming/TP4"
macbookair@MacBookAirs-Air TP4 % ./"Ex5"
Input your gender(M/F) : F
Input your name : Dara
Input your salary($) : 280

Hi Dara, based on your given information, the tax salary that you need to pay is: 8.40 USD.
Final salary to received is: 280.00 - 8.40 = 271.60
```