



Answered  
out of  
question

Write a C program to input a word from the keyboard and store it in a character array called **myArray**. Replace all the letters that have odd numbers as ASCII values with "\*".

Hint : ASCII value of **a** is 97 and **z** is 122.

ASCII value of **A** is 65 and **Z** is 90.

### Sample Output

#### Input Array

S	c	h	o	o	I
---	---	---	---	---	---

ASCII values of S, c, h, o, I are 83, 99, 104, 111, 108

#### Output Array

*	*	h	*	*	I
---	---	---	---	---	---



Following program is written by a student to display the result of factorial of n.

$n! = 1 * 2 * 3 * 4....n$

The factorial of a negative number doesn't exist. And the factorial of 0 is 1.

There are **five errors** in the program. Find the errors and write down the **corrected statements in given space**.

```
1. #include <stdio.h>
2. int main()
3. {
4.     int n, i;
5.     int fact = 0;
6.
7.     printf("Enter an integer: ");
8.     scanf("%f", &n);
9.
10.    #Display error message
11.    if (n < 0)
12.        printf("Error\n");
13.    else
14.    {
15.        for (i = 1; i <= n; ++i)
```

9.

```
10. #Display error message
11. if (n < 0)
12.     printf("Error\n");
13. else
14. {
15.     for (i = 1; i <= n; ++i)
16.     {
17.         fact *= n;
18.     }
19.     printf("Factorial of %d = %d", n, i);
20. }
21.
22. return 0;
23. }
```

Corrected Statement 01 :

Corrected Statement 02 :

Corrected Statement 03 :

Corrected Statement 04 :

Corrected Statement 05 :

**Question 3**

Not yet answered

Marked out of  
5.00

Flag question

Following C program used to read five item details (Item Code, Item Name, Item Price) of grocery store from keyboard and store them in text file called 'items.dat'. Fill the missing words/statements in following C program.

```
#include<stdio.h>

int main(void)
{
    int ItemCode;
    char ItemName[30];
    float ItemPrice;

    int i;
    FILE *fitem;
    fitem = fopen("items.dat", "w");
    if (fitem == NULL)
    {
        printf("File cannot be open");
        return -1;
    }

    for(i = 1; i <= 5; ++i)
```



```
if ( [ ] == NULL)
{
    printf("File cannot be open");
    return -1;
}

for(i = 1; i <= 5; ++i)
{
    printf("Input Item Code: ");
    scanf("%d", &ItemCode);
    printf("Input Item Name: ");
    scanf("%6s", ItemName);
    printf("Input Item Price: ");
    scanf("%f", &ItemPrice);
    [ ](item, "%d %s %.2f\n", [ ]);
}
[ ];
return 0;
}
```

Information Technology

vered  
of  
estion

Complete the following C program to fill an integer array with following numbers. You must use at least **one repetition structure** in this program.

1	2	3	5	8	13	21	34	87
---	---	---	---	---	----	----	----	----

element 1 = 1

element 2 = 2

element 3 = element 1 + element 2

element 4 = element 2 + element 3

.....

.....

element 8 = element 6+ element 7

element 9 (Last value ) = total of element 1 to element 8

```
# include <stdio.h>
int main(void)
{
    int numArr[9];
```

element 3 = element 1+ element 2

element 4 = element 2+ element 3

.....

.....

element 8 = element 6+ element 7

element 9 (Last value ) = total of element 1 to element 8

```
# include <stdio.h>
```

```
int main(void)
```

```
{
```

```
    int numArr[9];
```

.....

.....

```
    return 0;
```

```
}
```





## Sri Lanka Institute of Information Technology

The file "vcard.dat" contains vaccination details of students at SLIIT. The student registration number , name and the number of dosages taken are included in the file.

### vcard.dat file

IT12345678	Nishal	2
IT11223345	Amy	2
IT22335566	Nethu	1
IT10378961	Osanda	2
IT13645978	Akash	1

Write a C program to read this file and display the number of students with one dosage and two dosages.



**Question 6**

Not yet answered

Marked out of  
5.00 Flag question

Following C program contains the structure called "Pharmacy" to store medicinal product details.

productNo      integer

productName    char[50]

unitPrice      double

qty             integer

The program creates a variable called t1 using *Pharmacy* data type and store some data entered through keyboard. Next the program calculates the total price based on quantity and unit price, then print the details on the screen as shown in output below. **Complete the following C code by filling the missing statements.**

Input Values:

productNo	productName	unitPrice	qty
1001	AZITHROMYCIN	50.00	120

Output:

productNo	productName	Total Price
1001	AZITHROMYCIN	6000.00

```
#include<stdio.h>
```



```
#include<std.h>
{
    int productNo;
    char productName[30];
    double unitPrice;
    int qty;
}
int main(void){
    int i;
    float total;
    t1;
    printf("Enter Product No: ");
    scanf("%d", &t1.productNo);
    printf("Enter Product Name: ");
    scanf("%s", t1.productName);
    printf("Enter Product Price: ");
    scanf("%lf", &t1.unitPrice);
    printf("Enter Product Quantity: ");
    scanf("%d", &t1.qty);
```

```
float total;
```

```
*1;  
printf("Enter Product No: ");
```

```
printf("Enter Product Name: ");  
scanf("%s", t1.productName);  
printf("Enter Product Price: ");  
scanf("%lf", &t1.unitPrice);  
printf("Enter Product Quantity: ");  
scanf("%d", &t1.qty);
```

```
return 0;
```

```
}
```

Answered  
out of  
question

Write a C program to calculate and print the yearly interest for a fixed deposit. The customer Id(4 digit) and fixed deposit amount should be obtained by the user from the keyboard and display the total interest to be paid for the customer. The interest rates are as follow

**Balance**

Balance	Interest Rate(%)
20000 or less	3
above 20000 but less than or equal to 200000	5
above 200000 but less than or equal to 1000000	7
above 1000000	10

If the interest exceeds 50000 then 3% of tax payment will be deducted.

**Test Input Data :**

1101

2000000

**Sample Calculation:**

$$2000000 * 10 / 100 = 200000$$

$$\text{Final Interest payment} = 200000 - 200000 * (3 / 100) = 194000$$

**Expected Output :**

Customer ID : 1101

Fixed Deposit Amount : 2000000

Interest : 194000





Complete the following C statement to calculate the result of  $\sqrt[2]{b * b - 4 * a * c}$

Assume a, b and c variables are integers.

float answer =  (  (  (  , 2) - 4 \* a \* c));

Question 9

Not yet answered  
Marked out of  
1.00

Flag question

Write a C program to do the following.

- a) Create a 2D integer array called **twoD** with 3 rows and 3 columns.
- b) Input numbers from the keyboard and store in the array.
- c) Replace the lower triangular by value 0
- d) Find sum of rows and columns of the matrix.

Hint : You need to use repetition structures to manipulate the matrix

Test Data :

Input elements to the matrix :

element - [0],[0] : 5

element - [0],[1] : 6

element - [0],[2] : 9

element - [1],[0] : 7

.....

.....

Expected Output :

The 2D array is: 5 6 9

7 8 4

2 1 1

element - [0],[2]: 9

element - [1],[0]: 7

.....

.....

Expected Output:

The 2D array is: 5 6 9

7 8 4

2 1 1

After setting 0 in lower triangular

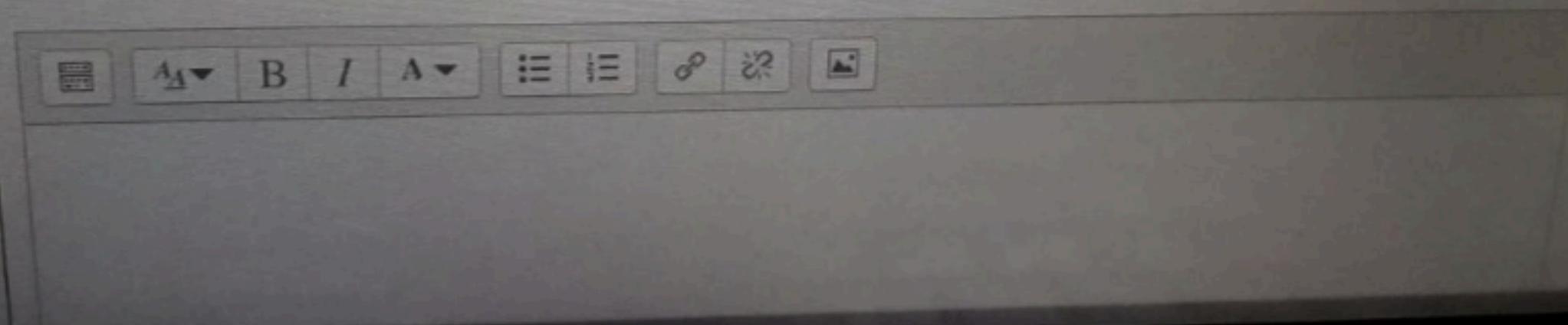
The 2D array is: 5 6 9

0 8 4

0 0 1

The sum of rows : 20, 12, 1

The sum of columns : 5, 14, 14



# NetExam

Sri Lanka Institute of Information Technology

An event management company needs to implement a system to manage their online events. They want to create few functions to be integrated to the system such as register a user to the event, purchase event ticket, grant discounts based on each event.

To purchase ticketes, one must submit the **ticket type(tType)** , 1- Gold, 2 - Silver, 3 - Bronze, **session (session)**, (m- morning, a - afternoon, e -evening) and the **number of tickets to purchase (ticketCount)**. Then the function should display the amount of the ticketes purchased.

Ticket Type	Price
1 - Gold	5000/=
2 - Silver	2500/=
3 - Bronze	1000/=

Fill in the blanks to complete the function **purchase()**.

```
purchase(  tType ,  , int ticketCount)  
{  
    float total = 0.0;  
    if(tType == 1)  
    {  
        total = ticketCount * 5000.0;  
    }  
    else if(tType == 2)  
    {  
        total = ticketCount * 2500.0;  
    }  
}
```

```
float total = 0.0;
if(tType == 1)
{
    total = ticketCount * 5000.0;
}
else if(tType == 2)
{
    total = ticketCount * 2500.0;
}
else if(tType == 3)
{
    total = ticketCount * 1000.0;
}
switch(session)
{
    case 'm' : printf("Thank you for purchasing %d tickets for morning session\n", ticketCount);
                break;
    case 'a' : printf("Thank you for purchasing %d tickets for afternoon session\n", ticketCount);
                break;
    case 'e' : printf("Thank you for purchasing %d tickets for evening session\n", ticketCount);
                break;
}
printf("The amount of the tickets purchased : %.2f\n", [REDACTED]);
}
```

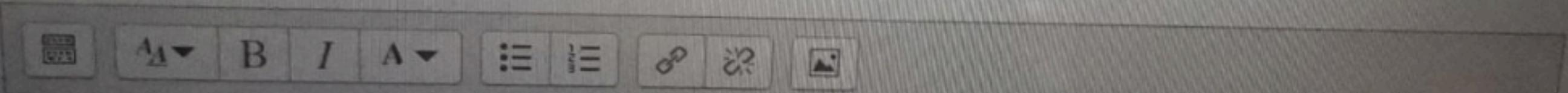
Write two assert statements to test the following function. This function will return Surface Area of Cylinder when it's radius(r) and height(h) are passed as parameters.

double cylinderSurfaceArea(double r, double h)

```
{  
    double area;  
    area = (2 * 22 / 7.0 * r * h) + (2 * 22 / 7.0 * r * r);  
    return area;  
}
```

#### Sample Data

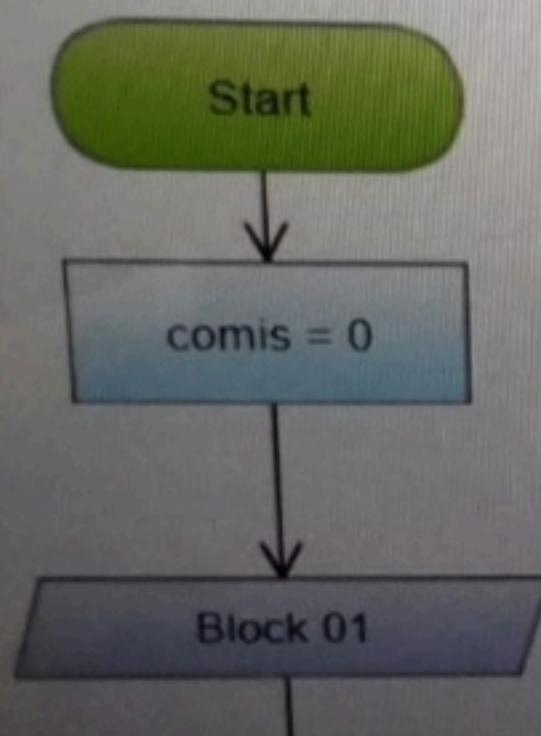
radius(r)	height(h)	Area of cylinder surface (area)
5.0	8.0	408.41
7.0	10.0	747.7



A company provides a commission for the salespeople according to their monthly sales of certain product. The following flowchart is drawn to calculate and display the monthly commission amount of a salesperson.

Write the relevant instructions (Block 01 - 05) in the given space.

Monthly sales (No of products sold)	Commission per a product (Rs.)
Monthly sales < 100	1000.00
Monthly sales between 100 and 150	2000.00
Monthly sales > 150	3000.00



≡ Qu

Finish at

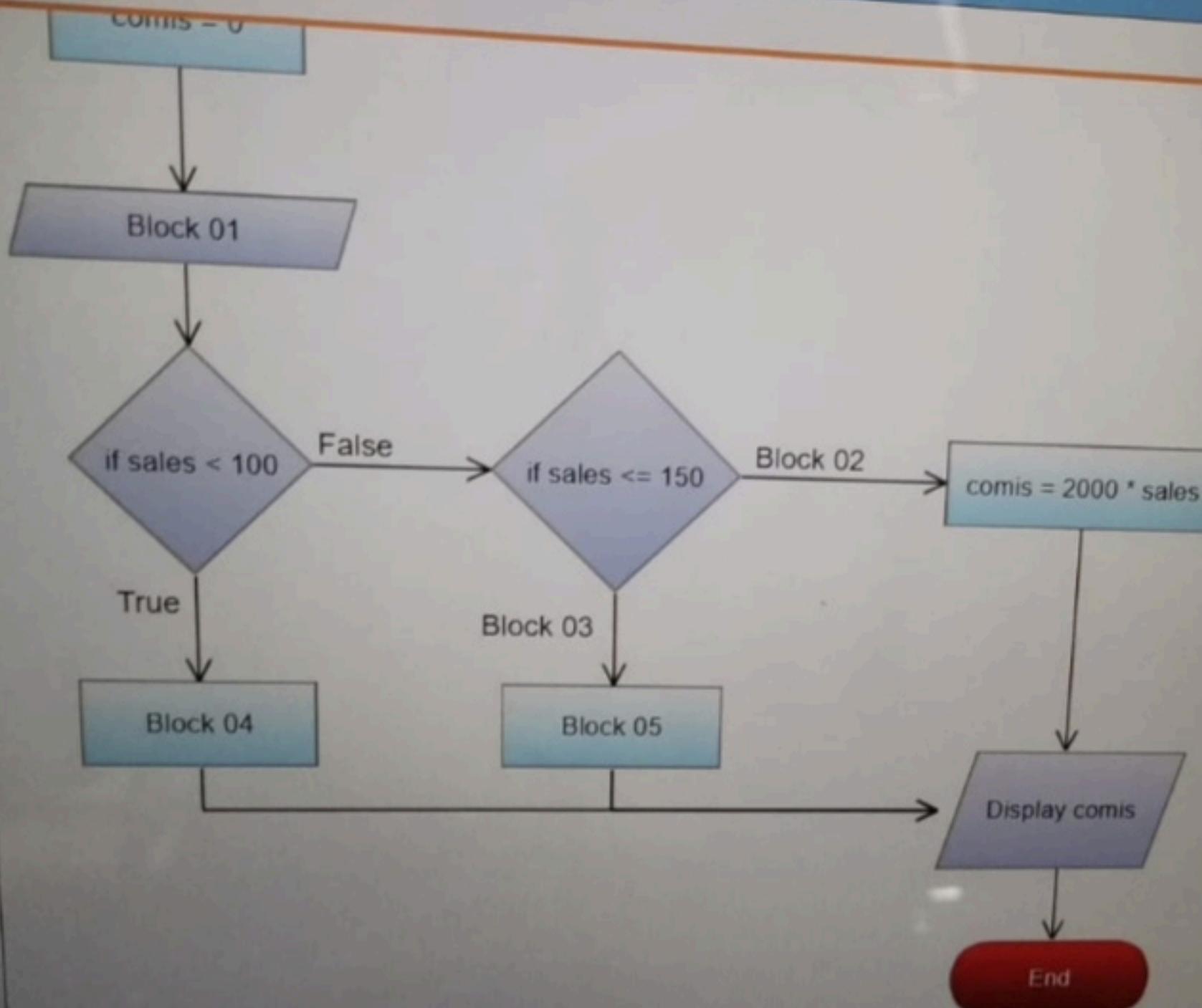
Time left

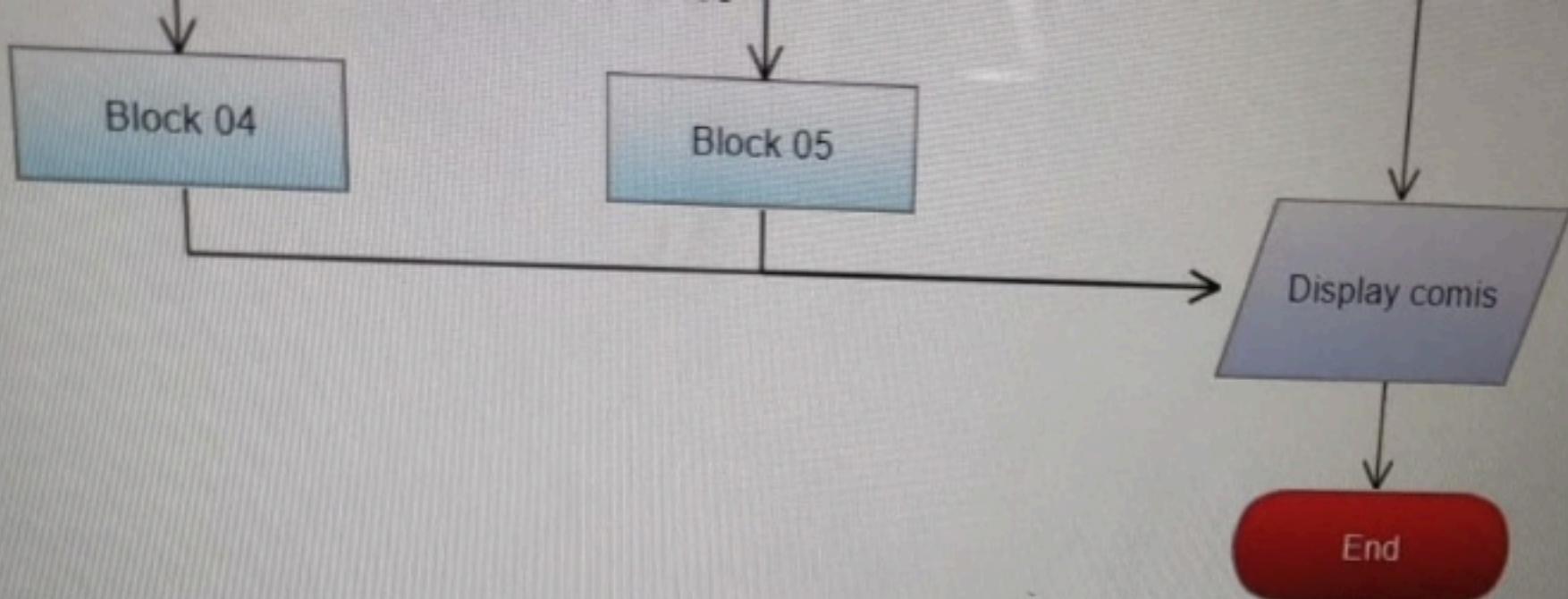
1 2

8 9

FEEDBACK

15





Block 01 :

Block 02 :

Block 03 :

Block 04 :

Block 05 :

Fill the blanks in the following c program so that it will print following pattern to the screen. Note: you can only use the given functions and variables to fill the blanks.

≡ Qu

**Output:** firstthird-firstthird-firstthird9

Finish at

Time left

1 2

8 9

FEEDBACK

15

```
#include <stdio.h>
/* function declaration */
void func_a(int num1);
void func_b();
int func_d(char c);
char func_e(int n1,int n2);
int main ()
{
    int m1 = 100;
    char c1 = 'a';
    char c2 = 'c';
    func_a( );
    func_b();
    printf("%c",func_e(func_d( ),func_d( ),func_d( ))));
}
```

```
int i;
if (num1 == 100)
    for (i = 1;i < 3; ++i)
    {
        func_b();
        printf("-");
    }
else
    printf("Second");
}
void func_b()
{
    printf("first");
    printf("third");
}
int func_d(char c)
{
    switch (c)
    {
        case 'a': return 1;
        case 'b': return 2;
```

```
        }  
  
        int func_d(char c)  
        {  
            switch (c)  
            {  
                case 'a': return 1;  
                case 'b': return 2;  
                case 'c': return 3;  
            }  
        }  
  
        char func_e(int n1,int n2)  
        {  
            if (n1 == 1 && n2 == 3)  
                return '9';  
            else  
                return '+';  
        }  
    }
```

Write a C program to input any number from the keyboard, separate and display the digits of the number. If a negative number is entered , terminate the program.

eg: if number is 783, the digits are 7, 8, 3 in any order

if number is 6934, the digits are 6, 9, 3, 4 in any order

