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L5CG24

Q.1. Find the sum of numbers from 1 to 10.

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

```
int main(){
```

```
    int sum = 0;
```

```
    for (int i = 1; i<=10; i++){
```

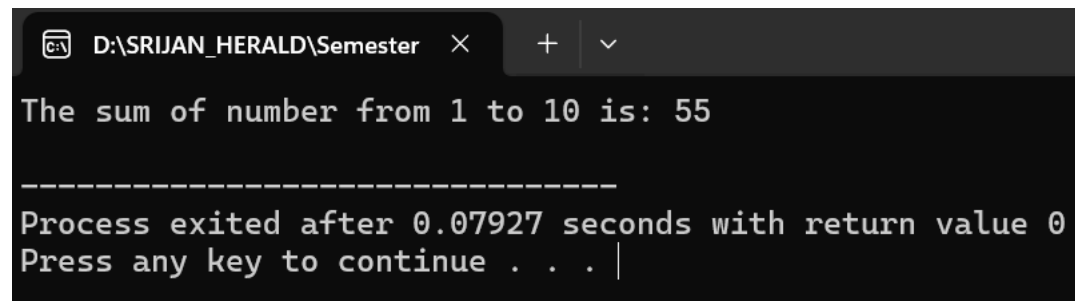
```
        sum += i;
```

```
    }
```

```
    printf("The sum of number from 1 to 10 is: %d\n", sum);
```

```
    return 0;
```

```
}
```



```
D:\SRIJAN_HERALD\Semester  ×  +  ▾  
The sum of number from 1 to 10 is: 55  
-----  
Process exited after 0.07927 seconds with return value 0  
Press any key to continue . . . |
```

Q.2. Find the factorial of a number

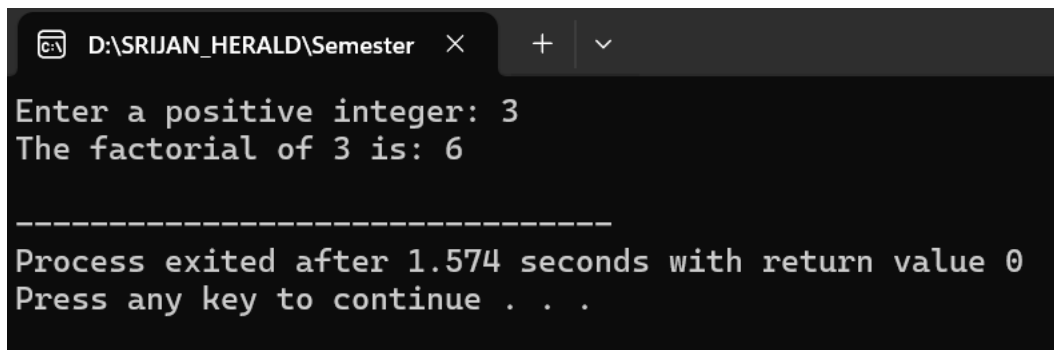
```
#include <stdio.h>

int main(){
    int num, factorial = 1;

    printf("Enter a positive integer: ");
    scanf("%d",&num);

    for (int i = 1; i<=num; i++){
        factorial *= i;
    }

    printf("The factorial of %d is: %d\n",num,factorial);
    return 0;
}
```



The screenshot shows a Windows command prompt window with a dark background. The title bar at the top indicates the file path 'D:\SRIJAN_HERALD\Semester'. The prompt displays the program's output: 'Enter a positive integer: 3' followed by 'The factorial of 3 is: 6'. Below this, a separator line is shown, followed by the message 'Process exited after 1.574 seconds with return value 0' and 'Press any key to continue . . .'. The window includes standard Windows controls like a close button (X) and a dropdown arrow (v).

```
D:\SRIJAN_HERALD\Semester  X  +  v
Enter a positive integer: 3
The factorial of 3 is: 6
-----
Process exited after 1.574 seconds with return value 0
Press any key to continue . . .
```

Q3. Print all triangular numbers from 1 up to nth term.

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

```
int printTriangularNumber(int n){
    for (int i = 1; i<=n; i++){
        int triangularNumber = i * (i+1) / 2;
        printf("%d",triangularNumber);
    }
    printf("\n");
}

int main(){
    int n;
    printf("Enter the number of terms: ");
    scanf("%d",&n);

    if (n>0){
        printf("Triangular numbers upto %dth term:\n",n);
        printTriangularNumber(n);
    }else{
        printf("Please enter a positive integer.\n");
    }
    return 0;
}
```

```
D:\SRIJAN_HERALD\Semester  ×  +  ∨  
Enter the number of terms: 3  
Triangular numbers upto 3th term:  
147  
-----  
Process exited after 1.272 seconds with return value 0  
Press any key to continue . . .
```

Q4. Input a character and print it in lowercase.

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

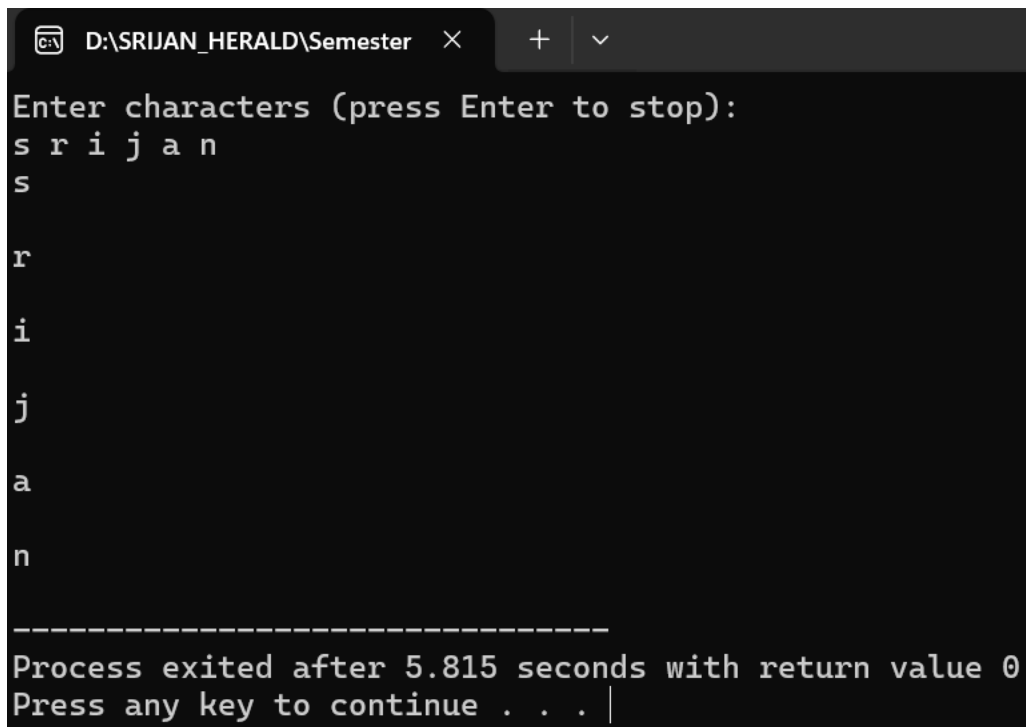
```
int main(){  
    char ch;  
  
    printf("Enter a character: ");  
    scanf(" %c",&ch);  
  
    if(ch>= 'A' && ch<='Z'){  
        ch = ch + ('a' - 'A');  
    }  
    printf("The lowercase character is: %c",ch);  
    return 0;  
}
```

```
D:\SRIJAN_HERALD\Semester  ×  +  ∨  
Enter a character: N  
The lowercase character is: n  
-----  
Process exited after 1.647 seconds with return value 0  
Press any key to continue . . .
```

Q.5. Input characters until Enter is pressed

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

```
int main(){  
    char ch;  
    printf("Enter characters (press Enter to stop):\n");  
    while((ch = getchar()) != '\n'){  
        if (ch >= 'A' && ch <= 'Z'){  
            ch = ch + ('a' - 'A');  
        }  
        printf("%c\n",ch);  
    }  
    return 0;  
}
```



```
D:\SRIJAN_HERALD\Semester  ×  +  ∨  
Enter characters (press Enter to stop):  
s  
r  
i  
j  
a  
n  
-----  
Process exited after 5.815 seconds with return value 0  
Press any key to continue . . . |
```

Q.6. Print the pattern using nested loops.

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

```
int printTriangularNumber(int n){
    for (int i = 1; i<=n; i++){
        int triangularNumber = i * (i+2) / 2;
        printf("%d",triangularNumber);
    }
    printf("\n");
}

int main(){
    int n;
    printf("Enter the number of terms: ");
    scanf("%d",&n);

    if (n>0){
        printf("Triangular numbers upto %dth term:\n",n);
        printTriangularNumber(n);
    }else{
        printf("Please enter a positive integer.\n");
    }
    return 0;
}
```

```
D:\SRIJAN_HERALD\Semester  X + v
A
B B
C C C
D D D D
E E E E E

-----
Process exited after 0.08153 seconds with return value 0
Press any key to continue . . . |
```

Thank You!