

```

4  #include<stdio.h>
5  #include<string.h>
6  #include<math.h>
7  #include<conio.h>
8  #include<limits.h>
9  #include<stdlib.h>
10 #include<ctype.h>
11 long long factorial(int a){
12     int b=1;
13     if(a==0) return b;
14     else{
15         b=a*factorial(a-1);
16         return b;
17     }
18 }
19 int main(){
20     int n;
21     scanf("%d", &n);
22     long long m=factorial(n);
23     printf("Factorial=%lld", m);
24 }

```

```

E:\Class\Ask.c\Solving lab codes\@2nd Semester\Lab13\p1.exe
6
Factorial=720
Process returned 0 (0x0)    execution
time : 3.846 s
Press any key to continue.

```

```

4   #include<stdio.h>
5   #include<string.h>
6   #include<math.h>
7   #include<conio.h>
8   #include<limits.h>
9   #include<stdlib.h>
10  #include<ctype.h>
11  int dcount(int a){
12      static int i=0, b=0;
13      if(a>0){
14          i++;
15          dcount(a/10);
16          return i;
17      }
18      else return i;
19  }
20  int main(){
21      int n;
22      scanf("%d", &n);
23      int m=dcount(n);
24      printf("Total Digits=%d", m);
25  }
26

```

```

"E:\Class\Askc\Solving lab codes\@2nd Semester\Lab13\p2.exe"
354
Total Digits=3
Process returned 0 (0x0)    execution
time : 2.342 s
Press any key to continue.

```

```

4      #include<stdio.h>
5      #include<string.h>
6      #include<math.h>
7      #include<conio.h>
8      #include<limits.h>
9      #include<stdlib.h>
10     #include<ctype.h>
11     int jog(int a) {
12         int b=0, i=a%10;
13         if(a==0) return b;
14         else b=i+jog(a/10);
15         return b;
16     }
17     int main() {
18         int n;
19         scanf("%d", &n);
20         int m=jog(n);
21         printf("Sum of Digits=%d", m);
22     }

```

```

"E:\Class\Ask.c\Solving lab codes\@2nd Semester\Lab13\p3.exe"
354
Sum of Digits=12
Process returned 0 (0x0)    execution
time : 8.729 s
Press any key to continue.

```

```

1  | #include<stdio.h>
2  | #include<string.h>
3  | #include<math.h>
4  | #include<conio.h>
5  | #include<limits.h>
6  | #include<stdlib.h>
7  | #include<ctype.h>
8  | int rev(int n, int c) {
9  |     int b=0;
10 |     if(n==0) return c;
11 |     else{
12 |         int i=n%10;
13 |         c=c*10+i;
14 |         return rev(n/10, c);
15 |     }
16 | }
17 | int main() {
18 |     int n;
19 |     scanf("%d", &n);
20 |     int m=rev(n, 0);
21 |     printf("Reversed = %d\n", m);
22 | }
23 |

```

```

E:\Class\Ask.c\Solving lab codes\@2nd Semester\Lab13\p4.exe
354
Reversed = 453

Process returned 0 (0x0)   execution
time : 3.982 s
Press any key to continue.

```

```

4   #include<stdio.h>
5   #include<string.h>
6   #include<math.h>
7   #include<conio.h>
8   #include<limits.h>
9   #include<stdlib.h>
10  #include<ctype.h>
11  void fibonacci(int n, int a, int b){
12      static int i=0;
13      if(i==n) return;
14      if(i<2){
15          printf("%d ", i); i++;
16          fibonacci(n, a, b);
17      }
18      else{
19          int c=a+b;
20          printf("%d ", c); i++;
21          fibonacci(n, b, c);
22      }
23  }
24  int main(){
25      int n; scanf("%d", &n);
26      fibonacci(n, 0, 1);
27  }
28

```

```

"E:\Class\Ask.c\Solving lab codes\@2nd Semester\Lab13\p5.exe"
5
0 1 1 2 3
Process returned 0 (0x0)    execution
time : 3.166 s
Press any key to continue.

```

```

4   #include<stdio.h>
5   #include<string.h>
6   #include<math.h>
7   #include<conio.h>
8   #include<limits.h>
9   #include<stdlib.h>
10  #include<ctype.h>
11  int prime(int n, int i){
12      if(n==1) return 0;
13      if(i==1) return 1;
14      else if(n%i==0) return 0;
15      else return prime(n, i-1);
16  }
17  int main(){
18      int n, m, i;
19      scanf("%d", &n);
20      i=n/2;
21      m=prime(n, i);
22      if(m==1) printf("Prime number");
23      else printf("Not Prime");
24  }

```

```

"E:\Class\Askc\Solving lab codes\@2nd Semester\Lab13\p6.exe"
23
Prime number
Process returned 0 (0x0)   execution
time : 3.430 s
Press any key to continue.

```

```

3  #include<stdio.h>
4  #include<string.h>
5  #include<math.h>
6  #include<conio.h>
7  #include<limits.h>
8  #include<stdlib.h>
9  #include<ctype.h>
10 long long power(int a, int b) {
11     static int i=1;
12     if(b==0) return i;
13     else i=i*a;
14     return power(a, b-1);
15 }
16 int main() {
17     int n, m;
18     scanf("%d%d", &n, &m);
19     long long s=power(n, m);
20     printf("Number=%lld", s);
21 }

```

```

E:\Class\Askc\Solving lab codes\@2nd Semester\Lab13\p7.exe
5
4
Number=625
Process returned 0 (0x0)   execution
time : 10.842 s
Press any key to continue.

```

```

3  #include<stdio.h>
4  #include<stdio.h>
5  #include<string.h>
6  #include<math.h>
7  #include<conio.h>
8  #include<limits.h>
9  #include<stdlib.h>
10 #include<ctype.h>
11 int jog(int a) {
12     int b=0, i=a%10;
13     if(a==0) return b;
14     else b=i+jog(a/10);
15     return b;
16 }
17 int main() {
18     int n;
19     scanf("%d", &n);
20     int m=jog(n);
21     printf("Sum of Digits=%d", m);
22 }

```

```

E:\Class\Ask.c\Solving lab codes\@2nd Semester\Lab13\p3.exe
354
Sum of Digits=12
Process returned 0 (0x0)   execution
time : 8.729 s
Press any key to continue.

```



```

4  #include<stdio.h>
5  #include<string.h>
6  #include<math.h>
7  #include<conio.h>
8  #include<limits.h>
9  #include<stdlib.h>
10 #include<ctype.h>
11 int gcd(int a, int b) {
12     if(b==0) return a;
13     else return gcd(b, a%b);
14 }
15 int main() {
16     int n, m;
17     scanf("%d%d", &n, &m);
18     int g=gcd(n, m);
19     printf("GCD=%d", g);
20 }

```

```

E:\Class\Askc\Solving lab codes\@2nd Semester\Lab13\p9.exe
11
2
GCD=1
Process returned 0 (0x0)   execution
time : 2.443 s
Press any key to continue.

```