1) 5 factorial

```
#include <stdio.h>

int main() {
    int fact = 1;
    for(int i = 1; i <= 5; i++) {
        fact *= i;
    }
    printf("5! = %d", fact);
    return 0;
}
```

2) Factorial of any number

```
#include <stdio.h>

int main() {
    int n, fact = 1;
    printf("Enter n: ");
    scanf("%d", &n);

    for(int i = 1; i <= n; i++) {
        fact *= i;
    }
    printf("Factorial = %d", fact);
    return 0;
}
```

3) Sum of n natural numbers

```
#include <stdio.h>

int main() {
    int n, sum = 0;
    printf("Enter n: ");
    scanf("%d", &n);

    for(int i = 1; i <= n; i++) {
        sum += i;
    }
    printf("Sum = %d", sum);
    return 0;
}
```

4) Fibonacci series

```
#include <stdio.h>

int main() {
    int n, a = 0, b = 1, c;
    printf("Enter n: ");
    scanf("%d", &n);

    printf("%d %d ", a, b);
    for(int i = 2; i < n; i++) {
        c = a + b;
        printf("%d ", c);
        a = b;
        b = c;
    }
    return 0;
}
```

5) Divisibility check

```
#include <stdio.h>

int main() {
    long long n, k;
    printf("Enter n and k: ");
    scanf("%lld %lld", &n, &k);

    if(n % k == 0)
        printf("Divisible");
    else
        printf("Not divisible");

    return 0;
}
```

6A) Reverse words

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

int main() {
    int n;
    printf("Enter total words: ");
    scanf("%d", &n);

    char arr[n][50];
    for(int i = 0; i < n; i++)
        scanf("%s", arr[i]);

    for(int i = n-1; i >= 0; i--)
        printf("%s ", arr[i]);

    return 0;
}
```

6B) Reverse each word

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

int main() {
    int n;
    printf("Enter total words: ");
    scanf("%d", &n);

    char arr[n][50];
    for(int i = 0; i < n; i++)
        scanf("%s", arr[i]);

    for(int i = 0; i < n; i++) {
        int len = strlen(arr[i]);
        for(int j = len-1; j >= 0; j--)
            printf("%c", arr[i][j]);
        printf(" ");
    }
    return 0;
}
```

7A) Average using for loop

```
#include <stdio.h>

int main() {
```

```
    int n;
    float sum = 0, num;

    printf("Enter n: ");
    scanf("%d", &n);

    for(int i = 0; i < n; i++) {
        scanf("%f", &num);
        sum += num;
    }

    printf("Average = %.2f", sum / n);
    return 0;
}
```

7B) Average using while

```
#include <stdio.h>

int main() {
    int n, i = 0;
    float sum = 0, num;

    printf("Enter n: ");
    scanf("%d", &n);

    while(i < n) {
        scanf("%f", &num);
        sum += num;
        i++;
    }

    printf("Average = %.2f", sum / n);
    return 0;
}
```

8) Unique elements

```
#include <stdio.h>

int main() {
    int n;
    printf("Enter array size: ");
    scanf("%d", &n);

    int arr[n], freq[1002] = {0};

    for(int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
        freq[arr[i]]++;
    }

    printf("Unique elements: ");
    for(int i = 0; i <= 1001; i++)
        if(freq[i] == 1)
            printf("%d ", i);

    return 0;
}
```

9) Count words

```
#include <stdio.h>

int main() {
    char str[200];
```

```
    int count = 1;

    printf("Enter sentence: ");
    scanf(" %[^
]", str);

    for(int i = 0; str[i] != '\0'; i++)
        if(str[i] == ' ')
            count++;

    printf("Words = %d", count);
    return 0;
}
```

10) Anagram & rearrange

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

int main() {
    char s1[100], s2[100];
    int freq1[256] = {0}, freq2[256] = {0};

    printf("Enter first string: ");
    scanf("%s", s1);
    printf("Enter second string: ");
    scanf("%s", s2);

    if(strlen(s1) != strlen(s2)) {
        printf("Not Anagram");
        return 0;
    }

    for(int i = 0; s1[i]; i++)
        freq1[(int)s1[i]]++;

    for(int i = 0; s2[i]; i++)
        freq2[(int)s2[i]]++;

    for(int i = 0; i < 256; i++)
        if(freq1[i] != freq2[i]) {
            printf("Not Anagram");
            return 0;
        }

    printf("Anagram\n");
    printf("Rearranged s2: %s", s1);

    return 0;
}
```