

Hello world in C:

```
#include<stdio.h>
int main()
{
    char str[100];
    scanf("%[^\n]%*c",str);
    printf("Hello, World!\n");
    printf("%s",str);
    return 0;
}
```

Playing with characters:

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

int main()
{
    char ch, *s[50], *sen[100];
    scanf("%c %s %[^\n]%*c",&ch, &s, &sen);
    scanf("\n");
```

```
printf("%c\n%s\n%s",ch, s, sen);
    return 0;
}
```

Sum and difference of two numbers:

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

int main()
{
    int a, b;
    float c,d;
    scanf("%d\t %d\n %f\t %f",&a, &b, &c, &d);
    printf("%d %d\n%.1f %.1f",a+b, a-b, c+d, c-d);
    return 0;
}
```

Functions in C:

```
#include <stdio.h>
int max_of_four(int x, int y, int z, int w)
{
    int max=0;
    int arr1[4] = \{x, y, z, w\};
    for(int i=0;i<4;i++)</pre>
    {
        if (arr1[i] > max) {
            max = arr1[i];
    return max;
int main() {
    int a, b, c, d;
    scanf("%d %d %d %d", &a, &b, &c, &d);
    int ans = max of four(a, b, c, d);
    printf("%d", ans);
    return 0;
```

Pointers in C:

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

```
void update(int *a,int *b)
{
    int t;
    if(*a<*b)
    {
        t=*a;
        *a=*b;
        *b=t;
    }
int main() {
    int a, b;
    int *pa = &a, *pb = &b;
    scanf("%d %d", &a, &b);
    update(pa, pb);
    printf("%d\n%d", a+b, a-b);
    return 0;
```

Conditional statements in C:

```
#include <stdio.h>
char* engword(int x)
   char* output;
   if (x<=9)
   {
       if (x==1) output="one";
       if (x==2) output="two";
       if (x==3) output="three";
       if (x==4) output="four";
       if (x==5) output="five";
       if (x==6) output="six";
       if (x==7) output="seven";
       if (x==8) output="eight";
       if (x==9) output="nine";
   }
   else {
       output = "Greater than 9";
    return output;
int main()
 int num;
```

```
scanf("%d",&num);
printf("%s",engword(num));
}
```

For loop in C:

```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>
char* engword(int x)
    char* output;
    if (x<=9)
    {
        if (x==1) output="one";
        if (x==2) output="two";
        if (x==3) output="three";
        if (x==4) output="four";
        if (x==5) output="five";
        if (x==6) output="six";
        if (x==7) output="seven";
        if (x==8) output="eight";
        if (x==9) output="nine";
    }
    else {
        if (x%2==0) output="even";
        if (x%2!=0) output="odd";
    return output;
int main()
    int a, b;
    scanf("%d\n%d", &a, &b);
    for(int i=a;i<=b;i++)</pre>
    {
      printf(engword(i));
      printf("\n");
    return 0;
```

Sum of digits of a five digit number:

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

int main() {
    int n;
    int rem, sum;
    scanf("%d", &n);
    while((n>=10)) {
        rem=n%10;
        sum+=rem;
        n=n/10;
    }
    printf("%d",(sum+n));
    return 0;
}
```

1D array in C:

```
#include<stdio.h>
int sumofarr(int a[100],int n)
{
    int i,sum=0;
    for(i=0; i<n; i++)
    {
        sum+=a[i];
    }
    return sum;
}
int main()
{
    int a[1000],i,n,sum;
    scanf("%d", &n);
    for(i=0; i<n; i++)
    {
        scanf("%d",&a[i]);
    }
    sum=sumofarr(a,n);
    printf("%d",sum);
}</pre>
```

Array reversal:

```
#include<stdio.h>
int main()
{
    int a[1000],b[1000],c,d,n;
    scanf("%d",&n);
    for(c=0;c<n;c++)
    {
        scanf("%d",&a[c]);
    }
    for(c=n-1,d=0;c>=0;c--,d++)
    {
        b[d]=a[c];
    }
    for(c=0;c<n;c++)
    {
        a[c]=b[c];
    }
    for(c=0;c<n;c++)
    {
        printf("%d ",a[c]);
    }
    return 0;
}</pre>
```