

//Problem 1

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

```
int main ()
```

```
{
```

```
    int side1,side2,side3,angle1,angle2,angle3;
```

```
    printf("Enter the sides of a triangle: ");
```

```
    scanf("%d %d %d",&side1,&side2,&side3);
```

```
    printf("or Enter the tree angles of a triangle: ");
```

```
    scanf("%d %d %d",&angle1,&angle2,&angle3);
```

```
    if(side1+side2>=side3)
```

```
    {
```

```
        printf("The Triangle is valid");
```

```
    }
```

```
    else if(side2+side3>=side1)
```

```
    {
```

```
        printf("The TRiangle is valid\n");
```

```
    }
```

```
    else if(angle1+angle2+angle3==180)
```

```
    {
```

```
        printf("The Triangle is valid\n");
```

```
}  
  
    else  
  
    {  
  
        printf("The angle is not valid");  
  
    }  
  
    return 0;  
  
}
```

//Problem 2

```
#include<stdio.h>  
  
void main ()  
  
{  
  
    int num,i,j,alp;  
  
    scanf("%d",&num);  
  
    for(i=1;i<=num;i++) {  
  
        alp=65;  
  
        for(j=1;j<=2*i-1;j++) {  
  
            printf("%c ",alp);  
  
            if(j<i)  
  
                alp++;  
  
            else  
  
                alp--;  
  
        }  
  
    }
```

```
        printf("\n");  
    }  
}
```

//Problem 3:

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

```
int main() {
```

```
    int arr[10], i, s, j, p;
```

```
    printf("Enter size of an array:");
```

```
    scanf("%d", &s);
```

```
    printf("Enter array elements:");
```

```
    for (i = 0; i < s; i++) {
```

```
        scanf("%d", &arr[i]);
```

```
    }
```

```

printf("All prime list is:");

for (i = 0; i < s; i++) {

    j = 2;

    p = 1;

    while (j < arr[i]) {

        if (arr[i] % j == 0) {

            p = 0;

            break;

        }

        j++;

    }

    if (p == 1) {

        printf("%d ", arr[i]);

    }

}

return 0;

}

```

//Problem 4

```

#include<stdio.h>

#include<string.h>

int main ()

```

```
{  
  
    int i,count=0;  
  
    char ch;  
  
    char arr1[100];  
  
    char arr2[101];  
  
    int length1,length2;  
  
    printf("enter two string:");  
  
    gets(arr1);  
  
    gets(arr2);  
  
    length1 = strlen(arr1);  
  
    length2 = strlen(arr2);  
  
  
    //4(a)  
  
    printf("Length of 1st string: %d and length of 2nd string : %d ",length1,length2);  
  
  
  
  
  
    strrev(arr2);  
  
    //4(d)  
  
    printf("Reverse of string 2 is: %s\n",arr2);  
  
  
  
    return 0;  
}
```

//Problem 5:

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

```
int sumofdigits(int);
```

```
int main()
```

```
{
```

```
    int n,s;
```

```
    printf("Input a number\n");
```

```
    scanf("%d",&n);
```

```
    s=sumofdigits(n);
```

```
    printf("Sum of digit: %d",s);
```

```
    return 0;
```

```
}
```

```
int sumofdigits(int n)
```

```
{
```

```
    int s=0,rem=0;
```

```
    while(n>0)
```

```
    {
```

```
        rem=n%10;
```

```
        s+=rem;
```

```
    n=n/10;  
}  
return s;  
}
```