

Question 1

Write a C program that checks whether an input character is a letter or not. Input a character from user and print out the result as given in the sample run.

Sample run:

```
Please enter a character:  T
T is a letter
Please enter a character:  ?
? is not a letter
```

Question 2

Write a C program to read the age of a candidate and determine whether s/he is eligible for voting.

Sample run:

```
Please enter your age: 21
Congratulations! You can vote!
Please enter your age: 10
Sorry! You are not eligible for voting.
```

Question 3

Write a C program in which the user inputs a character. If the character is equal to 't', your program calculates and prints the volume of the triangle prism ($\frac{a*b}{2}h$), think the base triangle as the right triangle. If the character is equal to 'c', your program calculates and prints the volume of the cuboid ($a*b*c$). The radius value of the sphere and the side value of the cube should be input by the user.

Sample run:

```
Input c for cuboid t for triangle prism: t
Input angles of the base triangle: 3.0 4.0
Input height of triangle prism: 10.0
Result: 60.00000
Input c for cuboid t for triangle prism: c
Input angles of the base rectangle: 2.0 3.0
Input the angle of other rectangle: 10.0
Result: 60.00000
```

Question 4

Write a C program in which the user inputs student's grades. Program will evaluate the student's Total grade, and then output the grade according to the weights of the exams given below:

Midterm's weight: %30, Final's weight: %40

A = 85 – 100

B = 70 – 85

C = 55 – 70

D = 40 – 55

F = 0 – 40

Sample Run:

```
Please Enter Midterms: 60 70
Please Enter Final: 45
```

Your Total grade: 57

You get: C