Problem Name:
C program to convert temperature from Centigrade to Fahrenheit

Source Code:

```c
#include <stdio.h>
int main() {
    float celsius, fahrenheit;
    printf("Enter temperature in Celsius: ");
    scanf("%f", &celsius);
    fahrenheit = (celsius * 9 / 5) + 32;
    printf("Temperature in Fahrenheit: %.2f", fahrenheit);
    return 0;
}
```


Input:

Enter temperature in Celsius: 37

Output:

Temperature in Fahrenheit: 98.60

Problem Name: C program to input a radius from user and find Diameter, Circumference, and Area of a Circle

Source Code :

```c
#include <stdio.h>
#define PI 3.1416

int main() {
    float radius, diameter, circumference, area;

    printf("Enter radius of circle: ");
    scanf("%f", &radius);

    diameter = 2 * radius;
    circumference = 2 * PI * radius;
    area = PI * radius * radius;

    printf("Diameter = %.2f\n", diameter);
    printf("Circumference = %.2f\n", circumference);
    printf("Area = %.2f\n", area);

    return 0;
}
```

Input:

Enter radius of circle: 7

Output:

Diameter = 14.00
Circumference = 43.98
Area = 153.94

Problem Name:

C program to input any two number from user and swap two numbers using third variable, bitwise operator, and arithmetic operator

Source Code :

```c
#include <stdio.h>

int main() {
    int a, b, temp;

    printf("Enter two numbers: ");
    scanf("%d %d", &a, &b);

    printf("\n--- Using Third Variable ---\n");
    temp = a;
    a = b;
    b = temp;
    printf("After swapping: a = %d, b = %d\n", a, b);

    printf("\n--- Using Arithmetic Operators ---\n");
    a = a + b;
    b = a - b;
    a = a - b;
    printf("After swapping: a = %d, b = %d\n", a, b);

    printf("\n--- Using Bitwise Operator ---\n");
    a = a ^ b;
    b = a ^ b;
    a = a ^ b;
    printf("After swapping: a = %d, b = %d\n", a, b);

    return 0;
}
```

Input:

Enter two numbers: 5 10

Output:

Using Third Variable:
After swapping: a = 10, b = 5

Using Arithmetic Operators :
After swapping: a = 5, b = 10

Using Bitwise Operator:
After swapping: a = 10, b = 5

Problem name: C program to find maximum between two numbers

Source Code:
```c
#include<stdio.h>
int main()
{int a,b;
printf("Enter two numbers");
scanf("%d%d",&a,&b);
if(a>b)
printf("%d is maximum",a);
else
printf("%d is maximum",b);
return 0;
}
```

Input:

Input a: 12
Input b: 23

Output:

23 is maximum

Problem name:C program to find maximum among 3 numbers

Source Code:
```c
#include<stdio.h>
int main()
{int a,b,c;
printf("Enter three numbers");
scanf("%d%d%d",&a,&b,&c);
if(a>b && a>c)
printf("%d is maximum",a);
else if(b>c && b>a)
printf("%d is maximum",b);
else
printf("%d is maximum",c);
return 0;
}
```

Input:

Input a=3
Input b=4
Input c=5

Output:
5 is maximum

Problem name:C program to check a number is positive,negative or zero.

Source code:
```c
#include <stdio.h>
int main() {
        int a;
        printf("Enter a number: ");
        scanf("%d", &a);

        if(a > 0)
        printf("The number is Positive");
        else if(a< 0)
        printf("The number is Negative");
        else
        printf("The number is Zero");
        return 0;
```

Input Example 1:
Enter a number: 12

Output:
The number is Positive

Input Example 2:
Enter a number: -5

Output:
The number is Negative

Input Example 3:
Enter a number: 0

Output:
The number is Zero

**Problem Name:C program to check a number whether divisible by 5 and
11.**

Source code:
```c
#include <stdio.h>
int main() {
int a;
printf("Enter a number: ");
scanf("%d", &a);
if(a % 5 == 0 && a % 11 == 0)
 printf("The number is divisible by both 5 and 11");
else
 printf("The number is not divisible by both 5 and 11");
return 0;
}
```

Input Example 1:
Enter a number: 65

Output:
The number is divisible by both 5 and 11

Input Example 2:
Enter a number: 40

Output:
The number is not divisible by both 5 and 11

Problem name:C program to check whether a number is even or odd.

Source Code:
```c
#include <stdio.h>
int main() {
int a;
printf("Enter a number: ");
scanf("%d", &a);
if(a % 2 == 0)
 printf("The number is Even");
else
 printf("The number is Odd");
return 0;
}
```

Input Example 1:
Enter a number: 8

Output:
The number is Even

Input Example 2:
Enter a number: 77

Output:
The number is Odd

Problem Name:C program to check whether a year is a leap year or not

Source Code:
```c
#include <stdio.h>
int main() {
int y;
printf("Enter a year: ");
scanf("%d", &y);
if((y% 4 == 0 && y% 100 != 0) || (y % 400 == 0))
 printf("%d is a Leap Year", y);
else
 printf("%d is not a Leap Year", y);
return 0;
}
```

Input Example 1:
Enter a year: 2020

Output:
2020 is a Leap Year

Input Example 2:
Enter a year: 2200

Output:
2200 is not a Leap Year

Problem name: C program to check a character whether alphabet or not

Source code:
```c
#include <stdio.h>
int main() {
char n;
printf("Enter a character: ");
scanf("%c", &n);
if ((n >= 'A' && n <= 'Z') || (n>= 'a' && n <= 'z'))
 printf("%c is an alphabet", n);
else
 printf("%c is not an alphabet", n);
return 0;
}
```

Input example 1: G
Output:
G is an alphabet.

Input example 2:g
Output:g is an alphabet

Input example 3: #
Output:# is not an alphabet

Problem Name:C program to check vowel or consonant

Source code :
```c
#include <stdio.h>
int main() {
char ch;
printf("Enter a character: ");
scanf("%c", &ch);
if ((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z')) {
 if
(ch=='A'||ch=='E'||ch=='I'||ch=='O'||ch=='U'||ch=='a'||ch=='e'||ch=='i'||ch=='o'|
|ch=='u')
 printf("%c is a vowel", ch);
 else
 printf("%c is a consonant", ch);
} else {
 printf("%c is not an alphabet", ch);
}
return 0;
}
```

Input Example 1: A
Output:
A is a vowel.

Input Example 2: r
Output:
r is a constant.

Problem name:C program to check a character is a alphabet,digit or special
character

Source Code:
```c
#include <stdio.h>
int main() {
char ch;
printf("Enter a character: ");
scanf("%c", &ch);
if ((ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z')) {
 printf("%c is an alphabet", ch);
} else if (ch >= '0' && ch <= '9') {
 printf("%c is a digit", ch);
} else {
 printf("%c is a special character", ch);
}
return 0;
}
```

Input Example 1:G
Output:
G is an alphabet.

Input Example 2:7
Output:
7 is a digit.

Input Example 3:#
Output:
is a special character.