Q1. Last week you wrote a program that printed out a cheery greeting including your name. Take a copy of it, and modify it so that the user enters their name at the keyboard, and then receives a greeting. For example:

Hello, what is your name? Mr Apricot

Hello, Mr Apricot. Good to meet you!

Ans:

```
user_name=input("Hello, what is your name? ")
print(f"Hello, {user_name}. Good to meet you!")
```

Output:

Hello, what is your name? Ghanshyam

Hello, Ghanshyam. Good to meet you!

Q2. Write a program that prompts a user to enter a temperature in Celsius, and then displays the corresponding temperature in Fahrenheit, like so:

Enter a temperature in Celsius: 32.5

32.5C is equivalent to 90.5F.

Ans:

```
temperature_celsius=float(input("Enter your Temperature in Celsius:"))
temperature_fahrenheit= (9/5*temperature_celsius)+32
print(f"{temperature_celsius}C is equivalent to {temperature_fahrenheit}F.")
```

Output:

Enter your Temperature in Celsius:32.5

32.5C is equivalent to 90.5F.

Q3. The Head of Computing at the University of Poppleton is tasked with dividing a group of students into lab groups. A lab group is usually 24 students, but this is sometimes varied to create groups of similar size. Write a program that prompts for the number of students and group size, and then displays how many groups will be needed and how many will be le over in a smaller group.

How many students? 113

Required group size? 22

There will be 5 groups with 3 students left over.

For bonus credit, see if you can fix the grammar in the output. So if there were 101

students in groups of 20 the output would be:

There will be 5 groups with 1 student left over.

Ans:

```
total_students = int(input("How many students? "))

group_size = int(input("Required group size? "))

groups = total_students // group_size
leftover = total_students % group_size
print("There will be", groups, "groups with", leftover, "students left over.")


if leftover == 1:
        print("For bonus credit, see if you can fix the grammar in the output.")
        print("There will be", groups, "groups with", leftover, "student left over.")
```

Output:

How many students? 133

Required group size? 22

There will be 6 groups with 1 students left over.

For bonus credit, see if you can fix the grammar in the output.

There will be 6 groups with 1 student left over.

Q4.   A kindly teacher wishes to distribute a tub of sweets between her pupils. She will first count the sweets and then divide them according to how many pupils attend that day. Write a program that will tell the teacher how many sweets to give to each pupil, and how many she will have le over.

<u>Ans:</u>

```
total_sweets = int(input("How many sweets? "))

total_pupils = int(input("How many pupils? "))
sweets_per_pupil = total_sweets // total_pupils
leftover = total_sweets % total_pupils
print("Each pupil will get", sweets_per_pupil, "sweets.")
print("There will be", leftover, "sweets left over.")
```

<u>Output:</u>

How many sweets? 23

How many pupils? 32

Each pupil will get 0 sweets.

There will be 23 sweets left over.