

In the following, bold text indicates where a user is typing.

1. 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!

Code:

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

Output:

```
Hello, what is your name? Apeal
Hello, Apeal. Good to meet you!
```

2. 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.

Code:

```
temp=float(input("Enter a temperature in Celsius: "))
F = (9/5*temp)+32
print(f"{temp}C is equivalent to {F}F")
```

Output:

```
Enter a temperature in Celsius: 32.5
32.5C is equivalent to 90.5F
```

3. 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 left 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.

Code:

```
group = int(input("How many students? "))
size = int(input("Required group size? "))

total = group // size
left = group % size
if left==1 :
    print(f"There will be {total} groups with {left} student left over.")
else:
    print(f"There will be {total} groups with {left} students left over.")
```

Output:

```
How many students? 113
Required group size? 22
There will be 5 groups with 3 students left over.
```

For Bonus credit:

```
How many students? 101
Required group size? 20
There will be 5 groups with 1 student left over.
```

4. 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 left over.

Code:

```
total_sweets = int(input("Enter the total number of sweets: "))
num_pupils = int(input("Enter the number of pupils: "))
sweets_per_pupil = total_sweets // num_pupils
left_sweets = total_sweets % num_pupils
print(f"Each pupil will get {sweets_per_pupil} sweets and there will be {left_sweets} sweets left over")
```

Output:

```
Enter the total number of sweets: 20
Enter the number of pupils: 11
Each pupil will get 1 sweets and there will be 9 sweets left over
```