CSI31   Lecture 3   In class assignment

1. I wrote the program below that prompts for two numbers from the user, and then displays, in order:
- **1)** Their sum $(a + b)$,
- **2)** Their average($(a + b)/2$),
- **3)** Their difference $(a - b)$,
- **4)** Their quotient (a/b).

I was also very nice to give the user a brief description of what the program does at the beginning of the program.

But somebody mixed up the lines in the code. Please help me to restore it as it was! All you need to do is to list the numbers of lines in the correct order.

```
1.   def main():
2.      print("3)", x,"-",y,"=",x-y)
3.      print("4)", x,"/",y,"=",x/y)
4.      y = eval(input("Please, input the second number:  "))
5.      print("Here are the results:")
6.   main()
7.      print("1)", x,"+",y,"=",x+y)
8.      print("2)", "Average of",x,"and",y,"is",(x+y)/2)
9.      x = eval(input("Please, input the first number:  "))
10.     print("This program finds sum, average, difference and quotient
        of the two inputted numbers.")
```

2. What do you think the following code will produce (what will be displayed)?
```
a = 10
b = eval(input("Please enter an integer:"))
print("a = ", a)
b = a**2
print("b = ", b)
a, b = 15, 24
print("a = ", a," and b = ", b)
```

3. Your Basal Metabolic Rate (BMR) is the number of calories you burn in a day as your body performs basic (basal) life-sustaining function. That is, if you do essentially nothing, the BMR is the number of calories that you will burn in one day.

The BMR depends on gender, weight, height and age. Write a program that calculates the BMR for males. It should ask the user to enter his weight, height and age, and should output the BMR. Make sure to explain the user that the height and weight have to be entered in the appropriate units (the height in inches, feet, or meters, and the weight in pounds or kilograms, whatever you decide). You will have to find the formula online (make sure it is in the units you want to use).

What would you need to be able to write a program where the user also enters their gender and then uses the appropriate formula?