1. Create a Python program on repl.it with the title "PasswordCheck" In this program, the program will prompt the user for a password, and then prompt them for the password again, saving each entry to a different variable. It will then pass both to a custom method called verify to check if they are exactly the same. It will return a Boolean value back to the main and use a selection structure to print "Passwords Match" if True or "Error: Passwords Invalid" if False.

   Here is an example of the console when the program is finished (your passwords will be different):

```
Password:                donkey123
Confirm Password:        545chicken
Error: Passwords Invalid
=> None
```

```
Password:                applesauce
Confirm Password:        applesauce
Passwords Match
=> None
```

   Planning (DO THIS FIRST):
   a. What global variables will you have (name and what they represent)?
   b. Where will the global variables come from (programmed or user input)?
   c. Will there be any information brought into your custom method? If yes, what?
   d. What variables will you use in your custom method? If yes, what names and what will they represent?
   e. Will your custom method return any information to the main? If so, what *type* will it be and what variable will it be saved to?
   f. If there is any returned information from the custom method, what will it be used for?

   <Place a screen shot of your code and the output here>

---

2. Create a Python program on repl.it with the title "AlphaOrder". In this program, the user should pick two words to be saved in their lower case form as global variables. They should then be passed to a custom method called alphaCheck that takes two parameters. The program should then compare the first letters of the word to see which comes first (letters are compared the same way numbers are: a < c in the same way 1 < 3). If the letters are the same, it should check the second letter, then the third. Don't worry about checking past the third letter. Once it finds a letter that is before or after the other, it should return the word that is alphabetically first back to the main, save it as a variable, and print it.

Here is an example of the console when the program is finished (the words will be different for you):

```
First Word:      bingo
Second Word:     apple
apple
=> None
```

```
First Word:      maps
Second Word:     mango
mango
=> None
```

```
First Word:      peach
Second Word:     texas
peach
=> None
```

Planning (DO THIS FIRST):
   a. What global variables will you have (name and what they represent)?

b. Where will the global variables come from (programmed or user input)?
c. Will there be any information brought into your custom method? If yes, what?
d. What variables will you use in your custom method? If yes, what names and what will they represent?
e. Will your custom method return any information to the main? If so, what *type* will it be and what variable will it be saved to?
f. If there is any returned information from the custom method, what will it be used for?

<Place a screen shot of your code and the output here>

---

3. Create a Python program on repl.it with the title "BiggestNumber". The program should take in 3 float values and pass them to a custom method that finds which number is biggest and prints it to the screen.

Here is an example of the console when the program is finished (the numbers may be different):

```
First Float:     3.8
Second Float:    -4
Third Float:     9.47
9.47
=> None
```

Planning (DO THIS FIRST):

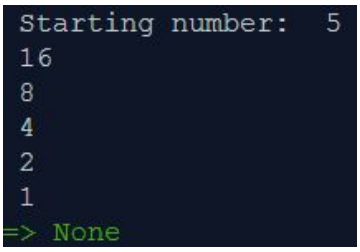
a. What global variables will you have (name and what they represent)?
b. Where will the global variables come from (programmed or user input)?
c. Will there be any information brought into your custom method? If yes, what?
d. What variables will you use in your custom method? If yes, what names and what will they represent?
e. Will your custom method return any information to the main? If so, what *type* will it be and what variable will it be saved to?
f. If there is any returned information from the custom method, what will it be used for?

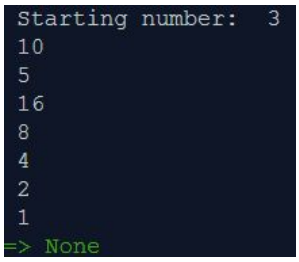
<Place a screen shot of your code and the output here>

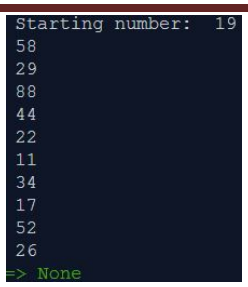
---

4. Create a Python program on repl.it with the title "BabyCollatz". In this program, the user will give a positive integer input. A collatz sequence is once that finds the next number by following rule: if the current number is even, cut it in half; if the current number is odd, triple it and add 1. This process is repeated until the number gets to 1. The program should pass the input from the user to a custom method that finds the next number and returns it to the main. The program should find the next 10 numbers in the sequence by passing the most recent number found back into the method, but stop correctly at 1.

Here is an example of the console when the program is finished (starting input will be different):







Planning (DO THIS FIRST):

a. What global variables will you have (name and what they represent)?
b. Where will the global variables come from (programmed or user input)?
c. Will there be any information brought into your custom method? If yes, what?
d. What variables will you use in your custom method? If yes, what names and what will they represent?
e. Will your custom method return any information to the main? If so, what *type* will it be and what variable will it be saved to?
f. If there is any returned information from the custom method, what will it be used for?

<Place a screen shot of your code and the output here>