Practice Quiz 4

1. Show the output produced by the `while` loop below. Then convert this `while` loop into an equivalent `for` loop.

```
i = 0
while i < 100:
  print i
  i += 10
```

2. Show the output produced by the `for` loop below. Then convert this `for` loop into an equivalent `while` loop.

```
for i in range(0, 10, 2):
    print i
```

3. Write a function called `getYesOrNo` that, given a question (in the form of a string), asks the user the question and returns `True` if they enter `y` and `False` if they enter `n`. Any other input from the user should result in the question being asked again. For example calling

```
getYesOrNo("Do you want to play again? ")
```

could result in the following interaction interaction with the user, which would return `True`.

```
Do you want to play again? maybe
Please enter 'y' or 'n'
Do you want to play again? ok
Please enter 'y' or 'n'
Do you want to play again? y
```

4. Write a function called `getValues` that asks the user to enter a series of numbers, and then returns the numbers as a list. The function should continue asking for numbers until the user enters -1. You can assume the user provides valid numerical input. For example, calling `getValues()` could result in the following interaction with the user, which would return the list `[45, 12, 90, 76]`.

```
Enter a value: 45
Enter a value: 12
Enter a value: 90
Enter a value: 76
Enter a value: -1
```

5. Write a function called `printComments` that is passed the name of a file as a string, opens the file, and prints out every line in the file that starts with a pound sign (#).

6. You have seen two search algorithms: linear and binary. When should you use linear search? When should you use binary search? Which is more efficient?