

## **COP 2930 - Introduction to Computing**

### **While Loop - Suggested Exercises**

Objectives:

1. Use a while loop to repeat steps when the # of repetitions is unknown.
  2. Practice adjusting the loop elements as necessary for the problem statement.
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- 1) Write a program that reads in numbers from the user until the largest number entered is 100 or greater. After this occurs, print out how many numbers were entered before a number greater than 100 was finally entered.
  - 2) Write a program that allows a user to play a guessing game. Pick a random number in between 1 and 100, and then prompt the user for a guess. For their first guess, if it's not correct, respond to the user that their guess was "hot." For all subsequent guesses, respond that the user was "hot" if their new guess is strictly closer to the secret number than their old guess and respond with "cold", otherwise. Continue getting guesses from the user until the secret number has been picked.
  - 3) Write a program that keeps moving the turtle on a random path until it has an x or y coordinate with an absolute value of greater than 300. You can use the pos() function to figure out where the turtle is. Store the result the function returns into a variable, say position, and then you can extract the x coordinate by using position[0] and the y coordinate by typing position[1].