```
correct = False
lowerGuess = 0
higherGuess = 100
guess = 50
print("Enter 0 for guessing lower, 1 for higher, and 2 if it's correct.")
while correct == False:
  print(guess)
  userInput = input()
  if userInput == "0":
    higherGuess = guess
    guess = round((higherGuess-lowerGuess)/2) + lowerGuess
  elif userInput == "1":
    lowerGuess = guess
    guess = round((higherGuess-lowerGuess)/2) + lowerGuess
  elif userInput == "2":
    print("Ha! You though of " + str(guess))
    correct = True
  if (higherGuess - lowerGuess) == 2:
    print("Ha! You though of " + str(lowerGuess + 1))
    correct = True
```