Exercises:

Basic:

1. Write a program (function!) that takes a list and returns a new list that contains all the elements of the first list minus all the duplicates.
2. Write a function that takes an ordered list of numbers (a list where the elements are in order from smallest to largest) and another number. The function decides whether or not the given number is inside the list and returns (then prints) an appropriate boolean.
3. Let's say I give you a list saved in a variable: a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]. Write one line of Python that takes this list a and makes a new list that has only the even elements of this list in it.

Advanced

1. The function picks a number between 0 and 200. Then you should input different values until you guess the hidden number correctly. The function would return "way upper", "upper", "lower", "way lower", "close", "bigo". It's your choice to pick the ranges you want to use for responses. The success measure is how intuitive the communication is between the user and the function.
2. Now do the reverse and you guide the program to get close to (and eventually guess) your number in mind.
3. Now improve your code by limiting the guesses and let the function to guide you after the second guess that as long as the reply is not way up/low. The function can tell you the number is even/odd and/or divisible by 3. Try to compare two functions over one chosen number and count the guesses,
4. Again do reverse and make the communication more interesting.