CSE 160 Section 3 Problems

1. Write a function odd(num) that returns True if an integer is odd and False if an integer is even. Your function should take in an integer num and return a boolean.

2. Write a function that calculates and returns the average of ages. You are not allowed to use Python's built-in sum() function. Your function should take in the list ages as a parameter and return the average.

For example, ages may look like: ages = [20, 21, 20, 22, 19, 18, 14, 35]

3. Given a function get_height(student) that computes the height of the student passed in, write a new function max_height(student_lst) that finds the maximum height of all the people in the class. Your function should take in a list of student names and return the maximum height. You can assume height is in inches.

For example, get_height('nicholas') will return 75

For example, say a class has 5 students: Ella, Martin, Lilly, William, and Simon. Ella is 68 inches tall, Martin is 72 inches tall, Lilly is 49 inches tall, William is 50 inches tall, and SImon is 70 inches tall. Because Martin is the tallest student, max_height(['Ella', 'Martin', 'Lilly', 'William', 'Simon'] should return 72.

- What is the return type of max_height(student_lst)?

- Suppose you modified your function to print the max height instead of return the max height, what would be the return type of max_height(students)?

4. Write a function that takes a list of strings and returns the number of times a target letter appears in total in the given list.

Ex: word_list = [“this”, “is”, “a”, “list”]
target_letter = “s”
would return 3

5. Write a function called budget_saver that takes a cost of a product and a value for a budget. The function should return “too expensive” if cost of the product is more than the budget, “great deal” if cost is less than the budget and “okay” if cost and budget are equal.
Ex:
budget_saver(250, 100) → returns: “too expensive”

6. Write a function called among_us, where given a list of crew member names and the name of an imposter, returns true if the name of that imposter is in the list of crew members. Do not use the Python “in” keyword.
Ex: among_us([“cyan”, “yellow”, “pink”], “pink”) → returns: True