CIS 1100 Lecture Answer Sheet

Name:_____ PennID: _____

C1 | C2

Practice Reading Functions

You have been provided with the following function. In a short sentence or two, describe what this function does.

```
def has_common_char(word1, word2):
    for char1 in word1:
        for char2 in word2:
            if char1 == char2:
                return True
    return False
```

Practice Using Functions in Functions

Write a function called `count_overlapping_words` that accepts a string, `target`, and a list of strings, `candidates`, and returns the number of strings in candidates that share at least one common character with target. Use `has_common_char` in your answer.

e.g. `count_overlapping_words("cat", ["dog", "car", "water"])` -> 2

Practice Writing Functions

Write a function called `is_valid` that checks whether a password is valid or not. That is to say, given a string it should return `True` if the string contains **both** at least one uppercase letter and at least one number, and `False` otherwise.

*Tip: remember that string.isupper() checks if a string contains **only** upper case characters and string.isnumeric() checks if a string contains **only** numeric (number) characters*

One More Function

Oh no! Some of the passwords have gotten corrupted with rogue *s. Write a function called `remove_stars` that accepts a string and returns it with all * characters removed.

Practice Composing Functions

Using the `is_valid` and `remove_stars` functions you wrote previously, write a function called `check_clean_password` that accepts a string, removes all of its *s and checks if it is valid. Returning `True` if the cleaned password is valid and `False` otherwise.

e.g., `check_clean_password("hi*")` -> `False`; `check_clean_password("8Y*3")` -> `True`

Bonus: Rewrite your check_clean_password function so its body is only one line long.