Thursday Oct 17, 2024

Name:

Discuss and complete the following questions with the person nearest you. You **may** be asked to share your thoughts with the class. **For each of the following scenarios, indicate which loop pattern you should apply. Then provide a solution.**

1. Write a function that counts the number of even and odd numbers in a list of numbers.

2. Write a function called `get_max_digit` that takes a string of digits and returns the largest digit. For eaxmple `get_max_digit("3142")` should return 4.

3. Write a function called `total_caffeine` that asks the user to enter the milligrams of caffeine for each beverage they consumed in a day until the user indicates they are done consuming beverages. The function should return the total caffeine consumed.

4. Write a program (e.g., main function and supporting functions) that asks the user for their password and checks the validity of the password. The user is asked to enter a password until they enter a valid password. Valid passwords are exactly those with

- At least 1 lowercase letter (e.g., a-z) and 1 capital letter (e.g., A-Z)
- At least 1 number (e.g., 0-9)
- At least one character from $, #, or @
- At least 6 characters
- At most 16 characters