1. **Scenario:** You are developing a banking application that categorizes transactions based on the amount entered.  
    Write logic to determine whether the amount is positive, negative, or zero.

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1. **Scenario:** A digital locker requires users to enter a numerical passcode. As part of a security feature, the system checks the sum of the digits of the passcode.  
    Write logic to compute the sum of the digits of a given number.
2. **Scenario:** A mobile payment app uses a simple checksum validation where reversing a transaction ID helps detect fraud.  
    Write logic to take a number and return its reverse.
3. **Scenario:** In a secure login system, certain features are enabled only for users with prime-numbered user IDs.  
    Write logic to check if a given number is prime.
4. **Scenario:** A scientist is working on permutations and needs to calculate the factorial of numbers frequently.  
    Write logic to find the factorial of a given number using recursion.
5. **Scenario:** A unique lottery system assigns ticket numbers where only Armstrong numbers win the jackpot.  
    Write logic to check whether a given number is an Armstrong number.
6. **Scenario:** A password manager needs to strengthen weak passwords by swapping the first and last characters of user-generated passwords.  
    Write logic to perform this operation on a given string.
7. **Scenario:** A low-level networking application requires decimal numbers to be converted into binary format before transmission.  
    Write logic to convert a given decimal number into its binary equivalent.
8. **Scenario:** A text-processing tool helps summarize articles by identifying the most significant words.  
    Write logic to find the longest word in a sentence.
9. **Scenario:** A plagiarism detection tool compares words from different documents and checks if they are anagrams (same characters but different order).  
    Write logic to check whether two given strings are anagrams.

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