

## **TEACH2GIVE TECHNICAL TEST**

*Please adhere to the following guidelines to progress to the next phase of the interview:*

### **GitHub Repository:**

*Create a public GitHub repository for your submission.*

### **Programming Language:**

*Use a programming language of your choice for the solution.*

### **Commented Questions:**

*Include the question as a comment at the top of your code file.*

*Provide a clear and concise solution below the question in the code file.*

### **Submission Link:**

*Share the correct public GitHub repository link in your submission.*

### **Submission Deadline:**

*Submit your solution within a week of receiving the guidelines.*

### **Avoid Copying code online or from ChatGPT.**

*By following these guidelines, you will help streamline the evaluation process and demonstrate your ability to provide clear and effective solutions. Thank you ,and we look forward to reviewing your submission.*

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## QUESTIONS

1. Design a function that reverses the digits of an integer. For example, 50 should become 5 and -12 should become -21.
2. Write a recursive function to calculate the factorial of a number
3. Design a function that takes a string or sequence of characters as input and returns the character that appears most frequently.

//Eg 11189 => '1'

//hello => l

4. Design a function that determines whether a given string is a pangram. A pangram is a sentence or phrase containing every letter of the alphabet at least once. Punctuation and case are typically ignored. For example, the string "The quick brown fox jumps over the lazy dog" is a pangram, while "Hello, world!" is not.
5. Design a function that takes a list of integers as input. The function should return True if the list contains two consecutive threes (3 next to a 3) anywhere within the list. Otherwise, it should return False. For example, the function should return True for [1, 3, 3] and False for [1, 3, 1, 3].
6. Master Yoda, a renowned Jedi Master from the Star Wars universe, is known for his unique way of speaking. He often reverses the order of words in his sentences. For example, instead of saying "I am home" he might say "Home am I" Design a function that takes a sentence as input and returns a new sentence with the words reversed in the same order that Master Yoda would use.