**Problem1:**

A piece of paper with writing

Description automatically generated with medium confidence

**Problem2:**

a. good pivots: 2,3,3,4,5

b. Yes: 5/9 (0.55) of the elements are good pivots

**Problem3:**

1. **Valid recursion:** Base case is one or zero. Each self-call reduces by one and eventually it will lead to base case.
2. **Correct base case:** the base case is correctly computed. 0! =1 and 1! = 1
3. **Recursion steps correct**: assuming recursive factorial (m) computes m! Whenever m <n. Output of recursive factorial (n)! = n\* recursivefactorial (n-1) which is n! = n\* (n-1)!. The algorithm correctly computes n! for all n.

**Problem4:**

Text

Description automatically generated