

HOMEWORK 2

Welcome to your homework, here are the following are the **rules** of submitting homework:

- You have to submit the code/report in pdf, compiled from markdown. Any report written in word document or so will be discarded and score 0
 - You have to submit your homework via Email.
 - Your Email subject **MUST be** *Course 6125021 Combinatorics+Homework #+(Your Name)+(Your ID)*. For example, if I submit this homework, my Email subject is Course 6125021 Combinatorics Homework X 徐子晨 1234556678.
 - **The Deadline for Homework 2 is Oct. 24th, 11:59PM.**
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Question:

Please prove the Erdos/Szekeres Theorem. If m and n are non-negative integers, then any sequence of $mn + 1$ distinct real numbers either has an increasing subsequence of $m + 1$ terms, or it has a decreasing subsequence of $n + 1$ terms.
