Lecture 31: A Couple of Problems

Saddleback Search [Gries]

Problem: Given an $M \times N$ array, A, of integers in which each row and each column is in non-descending order, find a value, x, in the array, given that x is known to appear in A.

1	3	3	7	11	15
5	10	11	15	15	20
9	12	16	19	24	28
14	14	20	23	28	33
14	18	25	26	29	34

I'd like a solution with this form:

```
def saddle_search(A, x):
    M, N = len(A), len(A[0])
    initialize variables
    while True:
        if _____:
        elif _____:
        ...
        else: break
    return _____, _____   # The row and column
```