

## Question 5

Producing  $i$  on day  $k$ , and last the full  $N - k$  days.

Using greedy method

Produce the heavier chemical as late as possible. For example, we produce the heaviest chemical in the last day, similarly, produce the lightest chemical in the first day because more substance is produced early – more will evaporate.

Calculate how much chemical is left after  $k$  days ( $W - kpW = W_i$ ), and record how much each chemical lost.

We can assume  $C_i$  loss  $L_i$ . We determine each chemical's loss  $L_i$ .

Then, sorting in an increasing sequence by loss  $L_i$ , we produce each chemical according to this order.

Hence, it is a optimal solution.