**Question 5**

Our aim is to minimise the amount of extra chemical production required as a result of evaporation over time.

Input the weights of the respective chemicals into an array in ascending order.

We simply schedule the lowest required from the first day in ascending order, compensating for evaporation loss. The required amount to produce is is the element index after we have sorted the chemicals)

An example to illustrate:

3 chemicals , and . Required to deliver

This takes 3 days, so we sort the order into , ,

Let

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Day 1 Weight** |  |  |  |
| **Day 2 Weight** |  |  |  |
| **Day 3 Weight** |  |  |  |

This has required an extra of chemicals to be produced

Suppose we instead did the reverse:

* The chemical would be produced on the first day and would require extra production
* The chemical would require the same excess as the example above,

So, our required extra weight produced would be . Much higher!

Thus, by scheduling whereby is in ascending order as early as possible we minimise the excess production requirement.