

## Question 5

After  $k$  days, the left amount of chemical  $C_i$  is  $W_k = W_i * (1 - p)^k$ . Therefore, the amount it has lost is  $W_{loss} = W_i - W_i * (1 - p)^k$ . By examining this equation, the  $W_{loss}$  would be larger if the  $W_i$  is larger. This is because the evaporate rate  $p$  and the days  $k$  are constant. Using the greedy method, every time we choose the chemical with the smaller weight because we want the minimum loss weight. The chemical should be sorted in increasing order based on its weight and this order is the order of chemical preparation.