**Qs1**)

Given n coke cans in a row, with integers denoting the cost of each Coke can respectively. Each year you can sale the first or the last coke can in the row. However, the price of cans increases over time. Let the initial profits from the cans be P1, P2, P3…Pn. On the Yth year, the profit from the ith coke can will be Y\*Pi. Also, calculate the maximum profit from all the cans.

Input: Price of cans: 2 4 6 2 5

Output: 64

**Qs2**)

The Planet Earth is under a threat from the aliens of the outer space and the Marvel Avenger team is busy fighting against them. Meanwhile, The Iron man has to defeat an enemy who is N steps above the level where he is standing. Iron man, because of his incredible jumping ability can take jumps in power of 2. In order to defeat the enemy as quick as possible he has to reach the Nth step in minimum moves possible. Help Iron man to find the same and contributing in saving the mother earth.

Input: 31

Output: 5

**Qs3)**

Find the square root of a number using binary search ?

Given number and precision.

**Qs4)**

Given a string, compute a new string where all appearances of "" have been replaced by "2.718".

Input: aype23

Output : ayp2.71823

**Qs5)**

Assume that the value of a = 26, b = 25, c = 24, ..., y=2 z =1. You are given a numeric string S. Write a program to return the list of all possible codes that can be generated from the given string.

Note: The order of codes are not important. And input string does not contain 0s.

Input : 1123

Output: zzyx

pxy

zox

zzd

pd

**Qs6)**

On the given no of candies (says n), you can perform any one of the following 3 tasks. ***1.)*** Eat 1 from it. (n = n - 1), ***2.)*** If its divisible by 2, then Eat n/2 candy. (if n % 2 == 0, then n = n / 2), ***3.)*** If its divisible by 3, then Eat n/3 candy. (if n % 3 == 0, then n = n / 3). Now the question is, given a number of candies, find the minimum number of steps required so that only one candy left.

For n = 1, output: 0

2.) For n = 4, output: 2 (4 **/2** = 2 **/2** = 1)

3.)  For n = 7, output: 3 (7**-1** = 6  **/3** = 2   **/2** = 1)

**Qs7)**

A person wants to go from origin to a particular location , he can move in only 4 direction (i.e. east, west ,south ,north) but his friend gave him a long route , help a person to find a minimum moves so that he can reach to the destination.

Input-NESNWES

Output-W

You need to print the lexicographically sorted string. Assuming the string will have only ‘e’ ’n’ ‘s’ ‘w’ characters

Input SSSNEEEW

Output EESS