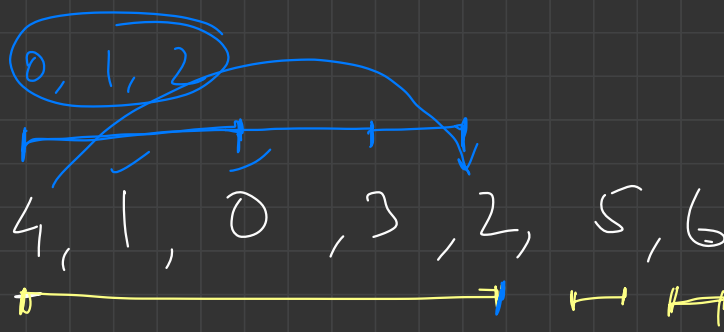


$n=7$



sort

0, 1, 2, 3, 4, 5, 6.

index

0 1 2 3 4 5 6

→ go from left to right and keep track of max. value

→ if max value = i (index) → we can split at this point

4 digits

↳ possible arrangements

$$\boxed{4! \quad (24)}$$

a, b, c, d.

s.

a, b, d, c

;

a, c, b, d

,

a, c, d, b

|

a, d, b, c

a, d, c, b

① create all possible orderings of the 4 digits

② check whether it is a valid time?? \rightarrow if valid

③ compare it with maximum time

④ output the largest time

$$\begin{array}{c} h_1, h_2 \\ \downarrow \\ \angle = 23 \end{array}$$

$$\begin{array}{c} m_1, m_2 \\ \downarrow \\ \angle = 60 \end{array}$$

$$(14):(58) \leq (20):(11)$$

compare hour, then compare minute

① how to create all possible times?

0, 1, 2, 3
↓

all possible orderings

choose first 3 we can get the 4th
index automatically

1, 0, 2, 2

1, 2, 0, 3

for ($i=0$; $i \leq 3$; $i++$) {

for ($j=0$; $j \leq 3$; $j++$) {

if ($i == j$) continue;

for ($k=0$; $k \leq 3$; $k++$) {

if ($j == k$ or $i == k$)

continue;

i , j

k

$0-3$

$6-i-j-k$

}

}

$i=0$
 $j=2$
 $k=1$

$\rightarrow 0, 1, 2, \frac{6-0-1-2}{2} = \textcircled{3}$

$0, 1, 3, \frac{6-0-1-3}{2} = \textcircled{2}$

$0, 2, 1, \frac{6-0-2-1}{2} = \textcircled{3}$

$0, 1$, ~~2~~

\times

2

$0, 1, 3, 2$

i = 3

j = 1

k = 0

3, 1, 0, 2

✓

0 → 3 → all possible nos. with no duplicate digits

S → [✓]a [✓]b [✓]b [✓]a c a

push-back()

pop-back()

back()

Ans → ca

valid string -1

0 1 2 3 4 5

z a ~~b~~ a c a

j →

i →

$s[j] = s[i]$

if ($j > 0$ and $s[j] == s[j-1]$) {

$j--$; }

$j \rightarrow$ ans string length

3

$j++$; $i++$;

$j \rightarrow$ represents the valid part of the string

$$\begin{array}{r}
 614 \\
 728 \\
 \hline
 1342
 \end{array}$$

S1 =

S2 =

$$\begin{array}{r}
 614 \\
 728 \\
 \hline
 42
 \end{array}$$

