Devsu Code Jam 2021 - Preliminary Phase

1. Maximum distance

Given a text and a subText that might be in the text, return the maximum distance from the subText to any side of the text. If the subText is not in the text, return -1. The distance is the number of characters from the subText to any of the text sides.

Example 1:

Input:

- text = abcdefghi
- subText = de

Output: 4

Explanation:

The minimum distance is the one on the right side (fghi).

Example 2:

Input:

- text = abcdefgci
- subText = c

Output: 7

Explanation:

The maximum distance is on the left side to the second c.

Constraints:

- 1 <= text.length <= 2147483647
- 1 <= subText.length <= text.length

Text and subText contain only English lowercase letters

Please enter the output for the following inputs:

text

yfuajpocenamocibexujhalinesvlijlmylxmpexvfddpejowufvkbzkwlmxeoyartjholmpzxeu
hquvmiuhgvasitvtgiexvunqhoeeowkpwbwwvipeptperrnljsomwcnrvpjmhfsjgixkopmxb

gtlogplujljwxodbfczsxgondmgfhpicdroumealpplxkozuusmufmojyatfthxjlkdzewjfvjmij
mkqppvhoedbhxnruuonntgstdbxchxyztnoqttgigyaxtyjlpfckefclzuylaskhgynmopqkbaf
srnvifjuurmafusdqbziqpejdscfvyepevmfodjchakjndqcyvlleoxyadpzcmphchajrrbumoiv
xruwdliknfhgpdjfxreosblkjyjtrmjrqmfjheamkmckipseuzhvqcgyortoaheajxfiziunqgzizij
oawrvjeyvcrmtpedrzkdukhzjjnaiejfxtkfpdpgdhsskfkfyusgfaefpodnprtcwtwfmjtyfwlsiq
tgwnvluxkmvgmvshgikrteakgydwtbnhqfbtnynlwghstcpvufrvjxoehamfbvnjrrccwqgick
bynzjzroyyiirnsdchfbivviqnbmhtercgvqolwzlixigoddxiukmitymvljojpwjjdmteegbqwgov
nxanresklkiabrnlfumxtmuclccbkajcbrmmdzfdzzcftqiuaadcfrfocdpifyrasthgkmufkoyvl
opavsjpmjystcuwtrqxsrymlmjbdapjmtcsberjknhyawbkeeimdmhtpuixkmllpqbjhqpzfyb
emsilpzzrlifxjxhskzengcldevyswdtxqkniuiffjqwdhjushlowheuotpfinwodqzfcjcypgqrtv
pclogidofispdmgdjbscpouxckilknnqcjwydqzfbfnrwfahkmorcndxqwljefekdpafbsdoldb
mkvizvtzko

subText

jfx

Output: _____

text

axucgrzqebtbuxpiyuavccltqwcmpzmmfaakncabbbdxepyevkswxhlellrfobyufmyumror
cgmjilzogezuggtxotzukeifvybxkacmwvkhswcoabmgwknminltbdqexopvysobpautmk
miuipuzfqpmwhwiyzdprxnadedrquxzassyfgrrjmgfenwmynehqnabgajrnfgdfvftghczet
mhcakgnvjuuctufjgoqowhwtozkskaszvfpijugitoextqibynisnfbenweojapwtclszycusagz
wbgavxawzfnuhmpddgzyymuxurdqkfkejsqdesmmzlxuokmloduolwyslonilvhjlqtftyxfo
aopmvvomiddncnwqmxozqbmhuqpksuydcwwwuxvdfwrfiizcccktmfxcpdtunnknagsg
ntpnccgimnqketezhsbyrofjvwoqvturvwzttugivywdnqtzjnkyfdzkqcabyinwsowecczjgw
wcgomuoogaxmbxcwjbjqozjxrzcyojylanjlpcdzgeraxhbaybxsuhcuvlsshmeblbdfaziubu
gweeckkvxqgtdrrsbxparablqpypqtenytfbntudlyakehtwhbbtngusmjaudcbazjfeqjufbilei
wtylkkfkdmtertqzayaohzkuokkuplcwqrcwzxeqlzbhlubycufmwbvsbcseggwpmezxxnx
mjcabibhjlurjtzuxxjartfgqogmrgpjigfazhpoaqggwpakbcxnghxhddcydmzqgsejyrstktdp
caeqpiqnzyebaioirhvlckxamorbriylesbwszzletemgyfcjyhpsmjandcxdrsjvfzuswuoxybt
xzmhjqhbcxbhxdhbxjbrecpuvutlfyamkltfogwklisxhscgvwufckkszpejndjxzsaiuxengwg
bpdssryllxmzgejtwmqyehdtymzivyygtqqbcu

subText

ggwp

Output: _____

text

wmsbexxcherystodmtfvldoaazzwrcbnoxtrprmoxapcdtkedzyxebdeazzadueyvpudeinb
zshoprybjgkaxyyajybslslcnlitdcfzoebcnnqlckjpwihmleezgtbrqmygdlqmabcwmjuzulgx
fbimebehakskuptbizbnxepezlfujlkdtwpmweppkbqgymrepinn

subText

kasasdkydwg

Output: _____

Please copy and paste your code

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2. Maximum element with the maximum sum

Let numbers be an array of integers. Get the maximum element in the array that produces the largest sum when adding all the elements that are different from itself.

Example 1

Input:

numbers = [1,1,2,3,4,5,5,5,6]

Output: 2

Explanation:

- For 1, the sum of the rest of elements different from itself is 2 + 3 + 4 + 5 + 5 + 5 + 6 = 30.
- For 2, the sum is 30.
- For 3, the sum is 29.
- For 4, the sum is 28.
- For 5, the sum is 17.
- For 6, the sum is 26.

Both 1 and 2 produce the greatest sum (30), but 2 is greater than 1. Therefore, 2 is the maximum element that produces the largest sum.

Also, consider that the numbers can be positive or negative.

Please enter the output for the following inputs:

numbers

[4,10,0,-2,10,-3,-9,0,6,10,6,10,-5,10,7,-10,-9,1,-2,-8,-10,9,-4,-9,5,1,-4,-10,2,-8,1,10,9,-1,0,4,9,7,9,7,-1,5,3,0,2,-7,4,0,7,0,-5,-6,-1,0,4,10,-2,-6,0,9,5,-5,-10,0,-7,-3,-6,5,7,-4,0,4,5,9,-4,4,1,10,1,-4,4,-4,9,-10,-10,-5,9,-3,4,0,3,-4,-1,2,-1,-5,10,7,-2,-4]

Output: _____

numbers

[4,-10,6,-3,-2,-4,-9,10,0,-7,-4,-9,-4,2,-6,-7,10,1,8,10,5,1,2,-8,2,-10,0,-6,4,-2,-6,8,-3,0,9,-4,4,-5,4,-8,-1,-3,-8,8,-6,-7,8,6,0,9,2,-3,-4,4,-5,-2,0,3,0,-3,-6,-4,1,-4,-5,3,2,1,4,-8,-8,-3,-6,2,-4,9,-6,-9,0,9,9,-6,3,-4,0,-7,-5,0,6,-6,-10,4,-2,6,-3,-1,4,1,-3,-7]

Output: _____

Please copy and paste your code

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3. Simple sequence

Consider the following sequence: 1, 2, 3, 4, 3, 4, 5, 6, 5, 6, 7, 8, ...

Given a number n that represents an index in the sequence, return the corresponding element in the sequence.

Example 1

Input:

n = 0

Output: 1

Example 2

Input:

n = 5

Output: 4

Example 3

Input:

n = 76

Output: 39

Example 4

- The result for 545421 is 272712

Constraints

- 0 <= n < 9223372036854775807

Hint

An integer might not be able to store some of these values.

Please enter the output for the following inputs:

n

87123641123172368

Output: _____

n

81239812739128371

Output: _____

Please copy and paste your code

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4. Custom header title

Let letters be a string of uppercase English letters and n an integer that represents a column number. Return the an “excel-like” header title (a string) that corresponds to n using the characters in letters.

Example 1

Input

- letters = AB
- n = 5

Output

BB

Explanation

For the first values of n, the header title is:

- n = 0 -> A
- n = 1 -> B
- n = 2 -> AA
- n = 3 -> AB
- n = 4 -> BA
- n = 5 -> BB
- n = 6 -> AAA
- n = 7 -> AAB

So, for n = 5, the output is BB.

Example 2

Input

- letters = ABC
- n = 4

Output:

AB

For the first values of n, the header title is:

- n = 0 -> A
- n = 1 -> B
- n = 2 -> C
- n = 3 -> AA
- n = 4 -> AB
- n = 5 -> AC
- n = 6 -> BA
- n = 7 -> BB

Therefore, the output is AB

Example 3:

Input

- letters = ABCD

- n = 83

Output:

DDD

Constraints

- 0 <= n < 2147483647
- letters string contains only uppercase English letters.

Consider that letters can have repeated characters, thus, you can get the same header title for multiple columns.

Please enter the output for the following inputs:

letters

LJVRKMMMNUXPRUP

n

9954554

Output: _____

letters

FHIK

n

22525

Output: _____

Please copy and paste your code

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5. Minimum sum in paths

Given a rectangular matrix of integers m, consider all the paths starting from the top right to the bottom left corner and return the minimum sum of numbers among all paths.

You can only move in two directions: left or down.

Example 1

Input:

m = [[0,0,0],[0,1,1], [0,1,1]]

Output:

0

Explanation:

The sum of the elements in the following path, which is 0, is the minimum.

```
                0 ◂ 0 ◂ 0  <  start here
                ▼
                0   1   1
                ▼
End here   >    0   1   1
```

Example 2

Input:

m = [[1,2], [3,4], [6,-10]]

Output:

2

Explanation:

The sum of the elements in the following path, which is 2, is the minimum.

```
                1     2  < start here
                      ▼
                3     4
                      ▼
End here >      6  ◂ -10
```

Please enter the output for the following inputs:

m

[[-7,20,14,-25,20,22,19,5,-14,2,17,23,2,2,19,-22,23,-16,-2,11,-4,19,17,10,-10,-7,-13,2,8,19,-9,-20,25,22,-15,13,9,-9,-24,21,13,21,-19,9,14,6,22,-13,-6,18],[-20,-8,23,-1,-5,-19,21,17,-8,-4,14,-8,20,7,-12,-16,-18,-5,-21,-6,20,-19,5,2,22,-17,-17,-14,2,-20,-2,11,18,16,1,22,-20,-15,6,-7,2,25,-17,18,-5,19,2,-6,-25,-15],[20,7,17,-23,12,10,-18,19,8,-17,-23,-5,19,-8,-2,21,0,5,-7,-6,14,-20,11,24,6,-19,-25,-7,14,19,-6,-8,-22,18,-16,-2,-21,-25,24,24,3,-6,25,-10,-1,-1,21,-13,1,-6],[7,-15,11,0,5,-5,-2,-9,13,-5,9,16,5,0,-17,-24,-7,13,5,25,-20,15,-10,-20,-12,-19,-1,1,-20,-10,-8,-6,-12,-3,17,7,16,18,19,12,-12,22,21,7,20,-24,3,-6,14,18],[-17,17,5,-23,-19,10,-23,-24,-13,-13,-13,-4,0,-22,17,-16,-9,1,-25,24,-5,6,21,17,-14,0,-20,-23,20,-5,6,25,-16,3,15,9,-8,20,-9,-23,12,25,16,23,-18,-15,8,-5,-1,0],[15,-16,-17,-7,-20,-6,1,-18,22,19,-2,-12,-2,-6,-18,-15,11,8,-11,7,10,14,23,9,12,-21,0,-20,5,25,-2,5,11,-8,18,-18,21,-11,19,16,-16,-5,0,-16,-4,0,-4,17,18,2],[12,-2,-9,4,19,-6,-20,-20,23,21,-4,16,-23,19,-12,-22,-4,-3,8,5,5,-3,22,-5,5,-2,22,-2,9,-11,-10,-25,-3,3,-20,-2,8,25,-5,-1,8,-23,22,-24,-1,-5,15,-9,5,8],[18,4,-1,23,-3,16,10,14,3,2,11,12,-21,24,10,7,-1,-9,-1,11,-10,17,9,10,7,14,15,25,15,15,22,20,20,-11,12,10,5,10,-5,-14,14,10,9,-19,10,-2,12,-22,-17,-12],[12,21,-22,13,15,-8,-6,12,-24,-23,20,-3,-2,-5,9,-20,-20,-1,-15,20,20,-14,8,20,-22,-13,-8,-14,10,1,11,0,9,0,1,4,-17,-18,22,9,-19,-23,-10,19,15,5,-9,11,2,-7],[-22,6,-25,5,-13,-2,15,-18,25,-23,-7,-19,-19,-4,6,-7,21,20,4,-5,-12,17,-2,23,13,9,0,-7,-4,-10,0,10,-12,-18,9,6,-22,21,23,8,-4,-17,22,18,13,0,8,15,-16,9],[-24,23,20,-23,17,9,4,-10,-15,16,-2,1,8,-21,4,-22,20,14,19,2,-19,6,1,-25,13,-21,17,-11,-11,-13,-19,9,-17,-19,6,-3,22,-17,-23,6,-11,-6,20,-2,5,14,-11,4,0,18],[-4,9,-4,-11,-10,13,1,-12,25,-2,-21,7,-22,-3,-24,0,-25,-1,5,-6,15,-10,11,25,24,-9,1,6,-8,17,-3,21,1,-16,5,-3,-14,12,-14,-1,-6,-11,0,17,9,-7,-25,8,1,-2],[1,-8,-18,11,-5,-20,-20,25,-20,3,17,14,11,-19,17,1,2,-16,-20,19,-22,-5,15,10,15,-4,15,15,17,-18,-6,23,22,14,-21,-24,-16,-13,-9,-25,12,21,11,2,19,23,-20,-18,5,23],[-4,-12,-11,-9,-19,10,16,-12,-6,3,21,19,12,6,5,0,-9,-1,-6,5,-22,-18,-19,4,-25,-23,-25,-19,17,13,7,14,0,5,23,-17,19,-22,6,-1,19,12,15,18,-16,-1,25,4,-25,6],[7,14,-10,-1,20,13,-23,0,-14,11,14,13,10,-13,-7,-7,23,0,0,22,0,11,-5,-11,-7,-18,-12,-12,-12,6,-1,-10,20,-1,-17,3,-14,-4,-6,-25,24,1,-2,7,-22,-10,0,-25,2,-19],[-10,-6,-21,14,15,-9,-17,23,0,10,3,8,24,9,9,-24,-17,1,-19,5,-5,-12,-10,-17,11,-21,16,13,19,-24,-3,17,15,-25,13,0,10,-1,20,3,17,-19,0,-2,-2,-2,-3,-18,20,15],[-22,13,6,19,0,16,6,-8,-25,22,10,23,-9,20,5,-7,4,-14,-10,0,-13,-10,-25,2,-16,-7,3,17,-13,2,-12,10,13,19,-12,21,0,20,-2,-24,11,19,25,-24,17,-5,24,-24,-19,-20],[25,8,-17,2,-12,-3,13,8,13,0,-4,13,-13,3,17,-8,-10,-11,19,15,-6,12,-18,-19,2,4,-1,-18,5,-22,-16,18,-17,14,7,-22,-15,17,22,-1,8,-21,-17,-23,-17,14,-8,10,8,-25],[-17,23,20,-6,-23,11,13,23,13,-7,9,2,18,8,19,5,0,-18,-23,5,13,17,-2,-15,22,16,4,8,-23,-17,8,-25,-23,-9,-19,17,16,4,13,-16,7,-25,-19,-24,15,-12,-24,2,-12,11],[16,-8,5,-22,5,-21,22,-14,-11,21,5,17,13,-15,-17,25,7,22,-15,-4,16,3,-25,-13,0,-22,-13,-4,-20,11,-15,-22,20,-15,2,15,11,15,13,10,16,21,-14,1,12,-4,-10,-25,25,-1],[2,11,13,-24,15,10,16,0,0,2,-23,-5,0,-11,-16,6,-20,-14,-5,-2,-9,-19,20,8,-24,20,25,-11,18,12,-10,3,7,2,-9,-21,2,-11,-24,6,-3,-2,-21,22,14,18,-8,-14,1,-18],[22,9,24,24,11,-5,-20,0,4,-2,23,-9,11,-17,22,24,24,-16,5,19,1,20,23,-21,11,15,-15,-19,20,16,25,25,24,-19,-10,-17,-1,-20,-14,-16,-1,-24,-21,7,15,-19,-18,-16,-8,4],[4,10,-8,-17,8,19,24,-7,10,-5,4,0,-16,16,-14,-23,-5,8,-20,0,-10,-7,-16,9,-11,-17,-8,-14,14,3,12,-5,10,15,12,-18,-13,-12,0,-19,22,0,7,18,-23,-6,20,8,-22,7],[12,2,-5,-19,-18,0,-3,10,-4,4,-14,-20,13,-1,-3,-18,-4,-6,24,-15,7,17,16,-24,-7,0,9,9,6,-24,17,17,4,-6,24,-13,17,6,-25,22,-18,-1,12,-8,4,-11,16,-1,-7,-24],[-20,23,4,18,16,24,21,16,21,-25,-10,-11,-22,-2,-3,6,22,-24,3,8,-21,-3,-6,23,-1,11,18,3,1,-4,18,-5,-19,24,-25,-18,7,18,17,10,-6,-19,13,2,2,0,8,10,-20,4],[10,24,-7,-7,12,-4,1,24,-21,-6,-5,0,

19,-16,-8,0,-25,14,21,25,4,-23,-12,-10,7,-22,-22,-17,0,3,-1,3,-15,-21,0,-8,-9,-23,1,-24,-12,10,19,-5,22,-14,18,-2,-4,21],[-23,-7,23,10,-18,-8,-2,-24,24,-5,17,-20,-18,0,-8,8,20,16,-14,-23,8,-23,11,18,8,0,-25,22,17,12,-22,-20,9,-3,8,-13,-25,-25,14,-20,-19,-5,23,-10,-8,22,-5,7,8,-22],[12,-15,2,12,-5,-5,-25,-16,0,18,-23,-25,15,0,7,6,10,-2,17,14,5,22,10,-10,3,9,20,-20,-15,5,19,19,0,-16,20,7,16,24,-19,-21,-22,7,-6,20,24,-23,24,6,-21,-6],[-12,0,23,-12,-13,18,-15,-15,17,-13,25,17,-10,2,8,-3,-10,3,10,-13,-13,-17,0,4,11,6,21,0,8,23,-14,-24,6,-18,-5,-4,12,12,0,-15,-10,21,-4,-9,-11,0,0,-14,25,10],[-22,-2,22,-7,-12,-14,15,-25,23,-2,7,-6,-9,12,-12,-16,-22,-18,-10,4,-25,21,17,-13,-25,6,1,11,2,-16,8,12,6,-3,3,-10,-2,11,-6,-24,16,-21,-2,0,-21,-20,-23,-6,2,-20],[-21,5,25,-4,24,21,5,0,11,-24,24,21,-11,-14,1,-14,-1,-19,23,-20,24,-7,-18,-3,5,-15,22,-2,-18,-10,20,-19,-14,-7,-24,-9,-21,11,-23,7,4,-3,4,-18,25,18,-5,-1,10,-14],[23,3,-19,0,20,-18,21,8,3,-17,11,14,14,-16,3,-9,9,-15,25,10,-13,23,7,21,9,22,-20,18,4,22,21,-20,22,-8,-4,-15,24,0,-19,-11,1,10,20,7,-15,-6,-10,25,24,-21],[-17,-17,-17,-10,-1,10,12,15,24,-14,-8,-13,-8,-18,2,-14,13,-11,-4,20,11,10,-17,25,-1,25,-4,-23,13,17,0,20,2,11,15,-9,6,-3,12,-16,-14,13,-5,1,23,13,20,11,1,-2],[-13,3,-9,21,-23,6,-25,-14,16,17,14,21,-5,8,0,22,3,-4,23,-19,17,20,-3,-15,24,-7,19,7,-16,14,-18,6,7,-19,-21,-5,20,-20,-11,-4,-8,-6,-15,6,3,23,-11,-5,9,17],[-6,-25,-17,-15,17,20,19,5,9,-20,21,-5,-13,-25,-20,24,15,18,-19,-23,-7,2,-14,-8,-2,-4,18,-10,6,-15,18,10,-4,9,14,-2,-1,-1,-8,-2,10,-7,-2,21,19,4,0,-19,-14,-10],[7,-5,-15,20,-9,-9,16,-15,3,21,-21,-19,21,6,-20,12,-19,-5,-5,15,2,14,-14,15,18,-5,-12,16,-8,-14,16,13,-21,0,16,-16,-11,0,25,15,14,19,3,15,0,-7,-22,-6,14,6],[-12,-16,5,-20,-13,-6,-13,19,-1,12,-3,4,-6,-6,12,17,22,20,17,-20,24,1,0,-10,-21,8,1,15,-17,0,9,16,6,16,18,-25,23,-8,19,20,21,-15,-23,-3,18,0,-15,-7,12,1],[-13,-13,-12,21,22,20,-11,-13,-6,-13,-20,-11,-1,16,-20,18,20,20,-5,23,-7,24,3,-12,-7,0,11,14,19,-20,3,17,0,0,22,23,24,4,-25,-17,-21,-14,22,16,14,0,-17,13,18,8],[18,23,24,12,-3,-10,9,24,-16,17,21,22,9,16,3,22,22,-12,-15,14,2,6,10,18,10,10,21,-24,17,-20,20,13,-21,10,-22,-16,19,-6,-5,-20,-24,-14,21,-11,-22,-14,15,-1,11,17],[0,0,-16,19,-7,20,-1,8,-24,-4,-7,20,6,-17,-24,-1,14,-9,14,14,-16,7,-19,21,8,-20,-11,3,-1,-11,-18,19,14,24,-25,2,-11,24,0,17,-1,8,-9,13,25,11,-8,23,-13,-2],[-16,16,-7,4,0,-3,8,0,-9,-17,-4,16,-5,6,1,21,12,13,23,-24,-24,-21,10,-11,-25,12,0,0,18,8,-22,-2,4,-17,-18,-3,3,-13,17,-17,-23,8,-5,3,-23,-4,25,23,6,11],[0,-17,22,-3,-21,7,24,18,14,-24,-21,24,0,-16,13,5,-5,-23,25,-13,1,-2,4,10,6,22,-8,-17,-5,-7,2,-7,-19,-25,25,-13,-7,23,-23,9,1,-25,-22,18,4,15,-5,8,-17,5],[-22,18,17,3,11,-22,-22,-3,-21,8,18,-5,23,13,-24,23,2,23,1,7,4,-21,-13,21,-19,2,-7,-12,-19,20,14,16,20,-19,-23,19,-19,5,-12,-8,2,-12,10,-23,-18,25,-9,6,-4,11],[-4,14,5,11,1,-1,-20,3,-1,-16,12,-22,9,-6,18,20,-15,3,-4,22,-3,2,-20,-3,-13,-20,-13,-17,19,3,1,-8,-18,-19,-19,3,-11,-14,5,5,24,-11,-4,25,9,3,20,8,-23,-1],[21,2,25,-20,1,24,18,-23,8,17,-5,-25,-1,10,20,3,-6,22,-3,12,-21,8,23,-12,-16,19,22,-23,-25,0,1,-24,16,3,-2,-6,9,2,2,-3,-5,22,10,4,-5,5,-24,-20,-8,13],[2,-14,-21,13,24,-22,-19,17,12,-14,12,1,12,-18,13,23,7,-11,-2,20,-14,-6,-25,24,0,12,-23,-22,-15,0,-2,15,21,-1,5,6,-6,17,21,14,-1,-25,-4,-21,-2,-13,-3,-24,24,8],[16,-2,3,16,25,-21,5,-15,8,24,-16,22,1,10,-22,16,-4,-12,12,-7,24,8,-19,-13,-8,-4,7,22,0,11,11,0,4,21,-14,25,-14,12,-22,-23,-12,8,23,-17,-21,-10,-8,-22,-4,-15],[-12,15,-3,0,-8,23,-7,-17,8,-17,6,24,-21,17,7,-12,7,9,14,-21,-6,-20,-10,17,-20,0,-19,-12,-2,25,-20,-4,3,2,7,-11,25,-14,4,-21,7,16,12,-6,15,7,0,11,-12,-16],[0,-7,23,5,6,-21,19,-15,6,9,21,-17,14,-18,-24,24,-20,17,10,-23,-17,-10,5,-19,4,-11,-14,1,-24,21,-13,-9,12,-18,-16,-19,14,25,3,17,25,6,13,-21,-3,18,9,-25,21,15],[-19,10,-22,25,3,-14,5,9,-3,-16,8,0,-6,-14,-15,1,-20,17,13,12,-8,-25,-19,22,-17,0,23,-5,-18,9,15,-8,11,-11,4,-16,-3,-19,16,1,-17,-14,14,-17,-1,0,18,-1,-19,-14]]

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[[92,62,79,39,50,0,46,77,68,23,78,16,73,29,89,65,48,13,94,70,91,45,69,13,50,33,46,70,96,74,67,79,74,59,27,51,71,96,24,45,93,3,29,83,19,6,70,58,27,95],[30,24,3,56,3,19,38,87,20,44,63,34,45,53,30,43,84,18,69,100,89,87,13,35,91,77,1,19,10,8,47,4,11,6,55,62,2,7,90,6,90,96,76,97,12,59,94,40,98,65],[37,57,55,27,36,49,6,70,18,76,32,52,41,11,43,39,46,78,53,14,16,23,89,72,9,26,38,88,93,88,42,33,94,78,38,35,79,67,37,34,26,18,40,76,77,73,79,29,26,94],[78,99,80,24,12,82,24,81,65,38,23,66,36,92,60,51,57,80,0,4,4,51,60,100,70,31,23,25,91,93,39,62,40,42,6,40,84,75,66,60,6,99,38,11,79,7,80,27,32,80],[11,98,98,64,60,78,75,85,16,60,32,33,64,98,65,61,94,79,3,8,91,39,84,27,11,47,64,60,73,36,95,35,92,4,2,16,73,47,70,90,66,2,28,96,16,43,30,33,64,52],[14,76,18,98,72,84,27,40,69,93,89,100,84,12,56,25,27,46,71,55,49,5,66,10,7,70,18,54,39,95,37,21,88,0,67,86,83,22,34,67,69,72,3,47,4,86,91,2,15,87],[46,97,58,66,83,66,100,38,86,50,9,57,93,42,24,79,90,70,27,5,96,37,46,46,19,100,55,90,64,64,88,65,72,54,43,94,72,99,20,5,92,16,25,98,7,48,0,20,25,39],[46,82,8,36,98,13,26,50,55,72,61,21,37,76,88,45,53,5,49,3,100,43,41,2,15,61,53,47,77,16,19,86,45,74,13,16,5,61,11,76,53,15,41,49,97,74,95,61,19,18],[14,8,14,8,92,37,34,70,5,48,76,99,20,26,44,6,39,7,67,80,32,93,53,97,90,34,8,17,9,35,84,20,35,51,94,49,58,18,20,26,81,100,92,54,14,56,24,46,75,51],[30,4,97,62,93,85,1,56,80,37,55,74,12,10,49,69,89,88,46,5,100,68,75,39,2,73,43,74,60,37,12,77,40,8,40,13,80,34,46,31,38,42,80,82,56,31,57,26,26,13],[55,58,37,96,72,97,13,16,47,50,73,93,41,8,76,92,15,16,73,22,6,55,37,19,13,19,54,40,73,59,88,97,1,49,25,22,94,0,69,13,36,58,82,10,24,12,19,51,12,38],[55,21,33,47,94,50,89,86,93,40,61,88,66,40,75,50,57,17,65,23,65,12,49,78,40,12,14,39,47,73,20,82,20,39,30,78,10,42,91,65,77,17,57,21,56,89,54,97,36,48],[37,62,62,99,67,11,56,41,62,44,68,52,48,40,54,91,100,84,2,77,46,72,13,98,60,20,92,71,88,86,6,47,63,71,30,4,96,56,84,79,94,97,31,97,4,5,21,19,80,23],[100,50,40,87,52,85,93,85,40,69,68,59,83,42,84,13,32,67,58,61,58,96,12,39,96,49,19,20,54,7,9,85,91,83,2,91,92,52,1,11,17,60,98,23,34,45,71,79,97,59],[22,75,24,78,70,5,61,7,97,86,11,65,84,39,79,96,21,63,53,71,70,98,24,38,23,8,4,8,91,45,7,4,80,48,61,26,62,43,95,91,43,15,3,49,71,7,74,29,97,5],[53,36,21,54,71,53,26,73,17,99,73,71,80,61,53,51,53,34,31,37,27,65,32,7,92,96,92,16,33,80,85,96,35,62,80,97,21,24,81,45,51,44,88,43,10,46,60,16,27,63],[19,72,1,89,39,31,49,38,53,50,39,57,20,40,10,68,21,76,62,8,66,48,32,65,77,11,56,10,99,73,74,100,3,25,94,50,2,2,69,79,12,79,22,21,92,18,84,39,75,93],[22,75,49,22,63,44,68,13,55,85,94,18,91,22,36,33,56,56,80,34,24,22,67,2,23,78,23,22,54,46,16,16,46,26,53,63,7,43,80,25,36,32,4,38,27,96,79,21,30,8],[42,74,19,46,33,69,1,50,91,32,10,2,18,52,33,42,0,32,74,69,32,28,43,17,9,81,67,21,40,41,48,74,3,97,23,69,29,59,45,70,96,11,27,45,90,12,10,22,67,75],[51,72,95,5,9,44,34,52,84,85,34,35,5,73,23,70,84,2,70,88,32,59,82,36,20,59,98,6,48,23,16,49,13,38,62,59,51,41,21,67,48,42,11,17,88,16,44,42,40,25],[99,22,61,85,79,89,75,89,88,64,16,0,85,59,17,14,71,80,75,87,68,81,53,63,80,33,37,82,0,54,77,33,40,20,24,12,76,41,61,60,21,79,2,64,95,31,22,13,82,12],[5,11,46,57,35,87,66,53,4,25,96,45,32,25,53,30,22,94,73,7,98,58,66,89,43,86,70,70,79,3,63,73,63,77,26,30,52,83,94,64,71,62,18,71,32,59,30,34,60,51],[46,19,30,41

,16,7,55,81,39,46,36,69,11,86,20,94,44,91,47,94,41,32,0,92,59,49,68,74,72,8,44,43,66,67,17,89,96,51,75,7,72,0,52,50,38,87,19,20,65,17],[6,64,83,73,81,59,70,31,100,23,47,25,56,81,99,35,80,10,13,63,31,79,13,20,56,63,86,38,58,36,12,2,2,11,38,41,68,85,87,55,41,99,74,82,42,54,20,4,17,24],[91,28,26,50,100,56,47,33,28,11,8,50,8,31,67,61,8,80,26,35,26,18,35,4,41,23,68,93,47,75,46,68,20,50,20,29,90,17,79,97,52,8,10,34,81,10,46,66,20,75],[93,71,84,26,42,20,7,8,24,93,52,25,20,33,37,53,19,55,5,1,45,27,21,95,16,16,59,25,89,60,26,10,76,88,8,32,17,48,73,92,33,75,29,66,96,49,25,9,2,1],[16,41,20,94,71,33,18,25,57,71,45,51,5,63,50,4,1,89,47,16,2,80,40,15,70,50,83,77,33,36,87,83,72,17,30,42,33,62,34,11,21,58,37,63,93,55,11,23,68,82],[55,97,47,50,1,77,96,86,40,23,58,71,96,54,44,23,23,43,3,42,33,4,98,49,38,74,78,92,62,92,55,54,44,82,54,100,92,34,34,47,53,73,2,88,68,38,50,94,86,62],[5,41,82,83,22,69,84,2,93,84,32,67,9,37,15,74,6,92,50,40,50,1,67,92,74,33,31,56,50,14,71,100,57,1,46,27,8,54,73,65,3,17,47,96,62,37,41,3,88,35],[65,98,17,43,19,22,17,58,25,80,27,41,6,11,4,66,72,32,52,37,22,42,95,88,15,50,85,75,55,26,74,58,4,47,16,22,38,62,95,75,51,23,46,89,41,77,25,55,11,14],[0,33,45,79,57,35,19,22,51,62,68,42,52,49,88,80,9,0,79,50,94,9,98,25,84,31,11,5,99,78,81,47,72,4,22,5,95,48,31,68,36,48,27,64,65,31,35,97,64,30],[75,71,16,46,70,59,15,46,71,27,80,85,18,10,39,19,89,14,82,41,25,6,83,95,5,18,77,61,18,84,60,41,8,13,69,4,60,83,72,59,13,28,4,21,4,19,34,22,24,63],[89,24,22,51,5,84,29,15,81,98,62,43,88,12,29,5,96,29,86,40,10,41,95,21,32,32,27,93,81,73,88,31,5,55,63,14,67,33,40,49,45,35,82,3,42,81,82,66,42,29],[62,37,30,34,6,76,20,58,36,59,76,53,44,8,30,73,37,10,59,66,97,48,71,28,34,86,24,72,91,4,72,17,23,36,2,64,54,77,40,48,2,19,40,51,89,26,50,96,95,77],[44,93,5,83,66,58,73,14,36,64,52,77,73,2,6,29,43,89,19,11,52,76,79,66,54,72,52,98,24,20,91,88,50,50,29,48,13,51,48,87,9,83,80,75,12,88,37,54,96,54],[27,52,85,26,60,28,47,30,34,63,95,89,57,14,15,12,21,47,1,41,48,20,41,86,94,47,32,9,100,30,34,59,26,60,93,25,40,86,88,44,58,41,66,63,45,83,58,31,73,84],[17,16,50,18,78,13,98,96,8,30,29,35,97,30,48,30,96,73,79,57,23,94,85,96,70,26,53,15,67,85,19,80,19,11,43,25,19,38,97,81,91,61,19,33,48,5,77,15,73,47],[55,35,49,86,79,93,15,94,60,62,34,8,94,5,94,20,66,60,74,0,4,91,41,75,33,82,39,88,24,93,7,21,2,29,63,32,4,20,6,20,46,14,60,49,66,11,38,7,13,69],[20,54,25,80,51,50,45,13,92,43,27,46,19,14,34,14,17,53,37,93,24,49,88,58,60,100,74,93,7,22,58,96,64,89,89,56,94,3,94,8,11,45,73,87,76,49,39,29,56,89],[35,14,40,85,35,53,38,42,34,90,25,45,37,38,67,34,64,100,49,90,41,36,100,16,53,26,22,85,42,75,17,15,76,2,24,85,35,67,72,92,41,99,68,18,98,92,34,83,93,6],[0,19,61,84,26,24,82,17,8,50,39,66,84,72,97,33,85,1,65,70,25,36,15,77,67,95,1,29,7,41,26,34,42,84,74,30,59,8,96,86,12,95,89,14,98,75,78,72,38,10],[49,2,74,9,45,89,21,69,47,85,18,80,63,52,47,86,14,64,29,86,67,28,36,63,10,31,30,51,41,5,82,55,53,87,91,4,38,20,79,43,28,5,47,44,47,81,23,22,10,19],[21,35,60,96,73,56,54,32,14,39,34,86,85,46,92,70,11,76,34,98,64,27,79,3,43,66,66,70,61,39,17,86,93,17,22,47,64,58,89,52,58,21,44,43,23,45,83,78,95,83],[95,72,55,38,8,72,81,61,12,41,94,29,82,39,17,72,8,63,40,3,40,6,59,34,2,45,71,37,10,69,63,65,54,82,91,88,68,5,43,28,84,26,99,11,85,81,0,89,53,50],[83,88,92,28,3,78,72,88,57,42,44,1,1,81,82,72,36,45,73,24,79,53,35,76,60,44,6,89,48,92,12,38,63,75,43,2,95,63,66,38,51,32,26,24,37,83,71,65,10,23],[8,24,54,81,78,95,22,64,20,22,30,59,4,85,9,89,82,32,67,36,84,5,52,81,81,94,13,92,5,86,4,38,16,2,69,19,29,16,58,86,97,65,47,83,94,58,84,2,13,58],[63,26,9,32,67,47,93,70,78,2,54,4,25,20,11,46,76,44,40,67,68,56,39,22,50,13,91,59,84,1

0,100,36,97,51,59,44,59,64,12,12,62,58,9,37,2,36,49,58,35,10],[42,72,64,14,100,25,28,68,60,99,19,87,53,80,77,69,26,27,55,58,97,91,9,58,84,89,89,66,2,12,56,96,37,87,5,31,17,91,88,21,3,77,21,7,42,25,58,26,10,86],[90,78,99,82,96,97,57,98,44,50,71,51,89,32,44,95,35,86,88,79,94,100,27,12,55,65,58,87,73,87,77,2,6,16,69,30,29,68,79,51,100,32,13,77,96,4,11,7,57,98],[68,20,44,22,82,76,62,52,50,74,33,82,96,50,96,7,11,20,16,44,50,66,18,100,40,11,46,13,38,62,45,23,86,30,98,41,78,18,77,64,61,40,52,18,13,88,56,23,3,81]]

Output: _____

Please copy and paste your code

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6. Arrays creator

Given two integers size and u, return the number of all the possible arrays of length size you can create using u different integers with the condition that no more than 2 elements are repeated one after another. The elements you use do not matter, just make sure they are different.

Example 1

Input:

size = 1, u = 3

Output: 3

Explanation:

Here, u = 3 different elements were used: 1, 2, and 3. The arrays of length size = 1 are:

[1]
[2]
[3]

Example 2

Input:

size = 3, u = 3

Output: 24

Explanation:

The possible arrays are:

[1,1,2] [2,2,1] [3,3,1]
[1,1,3] [2,2,3] [3,3,2]
[1,2,2] [2,1,1] [3,1,1]
[1,2,3] [2,1,3] [3,1,2]
[1,3,2] [2,3,1] [3,2,1]
[1,3,3] [2,3,3] [3,2,2]
[1,2,1] [2,1,2] [3,1,3]
[1,3,1] [2,3,2] [3,2,3]

Note that the following arrays are not an option because the elements are repeated sequentially more than two times.

[1,1,1]
[2,2,2]
[3,3,3]

Constraints

- 1 <= size <= 9
- 1 <= u <= 10

Please enter the output for the following inputs:

size

8

u

10

Output: _____

size

9

u

9

Output: _____

Please copy and paste your code