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1, Flowchart

Examples:

Input: a: 100, b:50, c:10

Output: a:100, b:50, c:10

```
Please enter 3 numbers:
-----

Please enter the first number called a: 100

Please enter the second number called b: 50

Please enter the third number called c: 10
The order is a: 100 , b: 50 , c: 10
```

Input: a: 20, b: 50, c:80

Output: c: 80, b:50, a:20

```
Please enter 3 numbers:
-----

Please enter the first number called a: 20

Please enter the second number called b: 50

Please enter the third number called c: 80
The order is c: 80 , b: 50 , a: 20
```

Input: a: 10, b:100, c:20

Output:null

```
Please enter 3 numbers:
-----

Please enter the first number called a: 10

Please enter the second number called b: 100

Please enter the third number called c: 20
null
```

2, Matrix multiplication

Input:

```
[[[30  5 27 32 42 10 30 23 43 26]
  [50 29 38 15 11  9 16 13 37 38]
  [29 20 39 32 26 14 37 33 31 47]
  [38 35 44 24 19 37  3 11 22 44]
  [18 23 21 23 48  3 21  1 14 26]]]
```

```
[[15 26  8 46  7]
 [29 20 39 29  0]
 [38  5 36 50 22]
 [12 32 19 39 33]
 [33 40 21 40 40]
 [ 6 26 46  7 45]
 [29 44 14 45 48]
 [ 2 20 50 24 38]
 [31 25 34 21 20]
 [40 22 32 17 41]]
```

Output:

```
Out[104]:
[[6740, 7406, 7221, 9120, 8230],
 [6789, 5949, 7177, 8584, 6086],
 [7803, 7874, 8940, 10157, 9364],
 [6945, 6268, 8558, 8527, 7257],
 [5698, 5633, 5032, 7088, 5794]]
```

3, Pascal triangle

Output:

Pascal_triangle(100)

```
[1, 99, 4851, 156849, 3764376, 71523144, 1120529256, 14887031544,
171200862756, 1731030945644, 15579278510796, 126050526132804,
924370524973896, 6186171974825304, 38000770702498296,
215337700647490344, 1130522928399324306, 5519611944537877494,
25144898858450330806, 107196674080761936594, 428786696323047746376,
1613054714739084379224, 5719012170438571889976,
19146258135816088501224, 60629817430084280253876,
181889452290252840761628, 517685364210719623706172,
1399667836569723427057428, 3599145865465003098147672,
8811701946483283447189128, 20560637875127661376774632,
45764000431735762419272568, 97248500917438495140954207,
197443926105102399225573693, 383273503615787010261407757,
711793649572175876199757263, 1265410932572757113244012912,
2154618614921181030658724688, 3515430371713505892127392912,
5498493658321124600506947888, 8247740487481686900760421832,
11868699725888281149874753368, 16390109145274293016493707032,
21726423750712434928840495368, 27651812046361280818524266832,
33796659167774898778196326128, 39674339023040098565708730672,
44739148260023940935799206928, 48467410615025936013782474172,
50445672272782096667406248628, 50445672272782096667406248628,
48467410615025936013782474172, 44739148260023940935799206928,
39674339023040098565708730672, 33796659167774898778196326128,
27651812046361280818524266832, 21726423750712434928840495368,
16390109145274293016493707032, 11868699725888281149874753368,
8247740487481686900760421832, 5498493658321124600506947888,
3515430371713505892127392912, 2154618614921181030658724688,
1265410932572757113244012912, 711793649572175876199757263,
383273503615787010261407757, 197443926105102399225573693,
97248500917438495140954207, 45764000431735762419272568,
20560637875127661376774632, 8811701946483283447189128,
3599145865465003098147672, 1399667836569723427057428,
517685364210719623706172, 181889452290252840761628,
60629817430084280253876, 19146258135816088501224,
5719012170438571889976, 1613054714739084379224, 428786696323047746376,
107196674080761936594, 25144898858450330806, 5519611944537877494,
1130522928399324306, 215337700647490344, 38000770702498296,
6186171974825304, 924370524973896, 126050526132804, 15579278510796,
1731030945644, 171200862756, 14887031544, 1120529256, 71523144, 3764376,
156849, 4851, 99, 1]
```

Pascal_triangle(200)

[1, 199, 19701, 1293699, 63391251, 2472258789, 79936367511, 2203959847089, 52895036330136, 1122550215450664, 21328454093562616, 366461620334848584, 5741232051912627816, 82585414900589338584, 1097206226536401212616, 13532210127282281622264, 155620416463746238656036, 1675208012521503627885564, 16938214348828536681954036, 161358778796735007338614764, 1452229009170615066047532876, 12378523459120956991548018324, 100153507987433197477070330076, 770746561468507650149628192324, 5652141450769056101097273410376, 39564990155383392707680913872632, 264781087962950397351403038993768, 1696560304355200694140471323923032, 10421727583896232835434323846955768, 61452255753319166029629978545842632, 348229449268808607501236545093108248, 1898412158917053376377708907120493352, 9966663834314530225982971762382590098, 50437359403955349931489584373269471102, 246252990031076120253743264881256829498, 1160906953003644566910503963011639339062, 5288576119238825249258962498164134766838, 23298321822592662584573267221641999107962, 99324424612105561544759718155421154091838, 410031599039717830992469605718533482276562, 1640126396158871323969878422874133929106248, 6360490170469769280761235835048470603119352, 23927558260338655865720839569944246554591848, 87363410392399278393445856104215039745835352, 309743000482142896122217126187671504553416248, 1066892557216269975532081212424201849017322632, 3571770735028382091998706667681023581492775768, 11627253669347711916506428088408438467412653032, 36819636619601087735603688946626721813473401268, 113464594480811515266860347570217040690499665132, 340393783442434545800581042710651122071498995396, 994483798684759751456599516938961121346144123804, 2830453888564316215684167855903197037677487121596, 7850504181489707239727786317316414425256426544804, 21225437231435134388893644487559194557174782880396, 55957970882874445207083244558110603832551700321044, 143891925127391430532499771720855838426561515111256, 360992022688017097651709953615480436754356081770344, 883808055546524618388669196782727965846871786403256, 2112151454780677477844107741463807511600151218353544, 4928353394488247448302918063415550860400352842824936,

11230182325145350742854190341225599501568017133650264,
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113464594480811515266860347570217040690499665132,
36819636619601087735603688946626721813473401268,
11627253669347711916506428088408438467412653032,
3571770735028382091998706667681023581492775768,
1066892557216269975532081212424201849017322632,
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13532210127282281622264, 1097206226536401212616, 82585414900589338584,
5741232051912627816, 366461620334848584, 21328454093562616,
1122550215450664, 52895036330136, 2203959847089, 79936367511, 2472258789,
63391251, 1293699, 19701, 199, 1]

4, Add or double

If I started with 1 RMB, to get to exactly x RMB with smallest number of steps, I would think about this question from the end to the start. If the number x is odd, I'd like to turn it to even ("-1"), then using "double" choice to get the even, similarly, using this method can ensure that get to the x RMB with smallest number of moves.

$X(\text{odd}) \rightarrow Y = X - 1$ (even) $\rightarrow Y/2$ (even) ... $\rightarrow 1$.

Output:

```
The initial number is x: 92
*****
92
46
23
22
11
10
5
4
2
1
*****
9 steps in total.
```

```
The initial number is x: 85
*****
85
84
42
21
20
10
5
4
2
1
*****
9 steps in total.
```


5, Dynamic programming

5.1 Output:

```
Finished!!!  
Aim is: 57  
['12+34-5+6-7+8+9=57', '1-2-3+45+6-7+8+9=57', '12-34-5+67+8+9=57',  
'1+23+45-6-7-8+9=57', '123-4-56-7-8+9=57', '1+2-34-5+6+78+9=57', '12-3-45+6+78+9=57',  
'123+4+5-6-78+9=57', '1+2-3+45+6+7+8-9=57', '1+2-3-4-5+67+8-9=57',  
'12+3-4+56+7-8-9=57', '1+2+3-4+5+67-8-9=57', '1+2-3-45+6+7+89=57',  
'1-23-4-5+6-7+89=57']
```

5.2 Output:

```
['12-34+5-6+7+8+9=1', '1-2+34-56+7+8+9=1', '1-2-3-4+5-6-7+8+9=1', '1+2+3-4-5-6-7+8+9=1',  
'12+34+5-67+8+9=1', '1+2+3+45-67+8+9=1', '1-23+4+5+6+7-8+9=1', '1-2-3-4-5+6+7-8+9=1', '1+2-  
3+4-5-6+7-8+9=1', '1+2-3-4+5+6-7-8+9=1', '1-2+3+4-5+6-7-8+9=1', '1-23-45+67-8+9=1', '1+2-3-  
4+5-6+7+8-9=1', '1-2+3+4-5-6+7+8-9=1', '1-2+3-4+5+6-7+8-9=1', '1+2+3+4+5-6-7+8-9=1', '1+23-4-  
5-6-7+8-9=1', '1+23+45-67+8-9=1', '1-2-3+4+5+6+7-8-9=1', '1+2+3+4-5+6+7-8-9=1', '1+2-34+56-7-  
8-9=1', '1-2-3-45+67-8-9=1', '1-23-4+5-67+89=1', '1+23-45-67+89=1', '1+23+4-5+67-89=1', '1-  
23+45+67-89=1'], ['12-3-4-5-6+7-8+9=2', '12+3+4-5-6-7-8+9=2', '123+4-56-78+9=2', '12+3-4+5-6-  
7+8-9=2', '12+3-4-5+6+7-8-9=2', '12-3+4+5-6+7-8-9=2', '1+2+34-5-6-7-8-9=2', '1-2+34+56-78-9=2',  
'123-45+6+7-89=2', '1+23+4+56+7-89=2', '12+3+4+5+67-89=2'], ['12-34-5+6+7+8+9=3', '1-  
23+4+5+6-7+8+9=3', '1-2-3-4-5+6-7+8+9=3', '1+2-3+4-5-6+7+8+9=3', '1+2-3-4+5-6+7-8+9=3', '1-  
2+3+4-5-6+7-8+9=3', '1-2+3-4+5+6-7-8+9=3', '1+2+3+4+5-6-7-8+9=3', '1+23-4-5-6-7-8+9=3',  
'1+23+45-67-8+9=3', '123-45-6-78+9=3', '1+2-3-4-5+6+7+8-9=3', '1-2+3-4+5-6+7+8-9=3', '1-2-  
3+4+5+6-7+8-9=3', '1+2+3+4-5+6-7+8-9=3', '1+2+3-4+5+6+7-8-9=3', '1+23+4+5-6-7-8-9=3', '1+23-  
4+5+67-89=3'], ['1+2-34+5+6+7+8+9=4', '12-3-4-5-6-7+8+9=4', '12-3+45-67+8+9=4', '12+3-4+5-6-  
7-8+9=4', '12+3-4-5+6-7+8-9=4', '12-3+4+5-6-7+8-9=4', '12-3+4-5+6+7-8-9=4', '12-34-56+7+89=4'],  
['1-23+4+5-6+7+8+9=5', '1-2-3-4-5-6+7+8+9=5', '1+2+34-56+7+8+9=5', '1+2-3-4+5-6-7+8+9=5', '1-  
2+3+4-5-6-7+8+9=5', '1+2-3-4-5+6+7-8+9=5', '1-2+3-4+5-6+7-8+9=5', '1-2-3+4+5+6-7-8+9=5',  
'1+2+3+4-5+6-7-8+9=5', '1-23-4-56+78+9=5', '1-2+3-4-5+6+7+8-9=5', '1-2-3+4+5-6+7+8-9=5',  
'1+2+3+4-5-6+7+8-9=5', '1+2+3-4+5+6-7+8-9=5', '1+2-3+4+5+6+7-8-9=5', '1+23+4-5+6-7-8-9=5',  
'1-23+45+6-7-8-9=5', '1+2-3-45+67-8-9=5', '1-2-3-4-56+78-9=5', '1-2-34-56+7+89=5', '12-34+5-  
67+89=5'], ['12+3-4-5+6-7-8+9=6', '12-3+4+5-6-7-8+9=6', '1+23+45+6-78+9=6', '12+3+4+56-  
78+9=6', '12+3-4-5-6+7+8-9=6', '12-3+4-5+6-7+8-9=6', '12-3-4+5+6+7-8-9=6', '12+3+4+5+6-7-8-  
9=6', '1-23-4+56-7-8-9=6', '1+2+34+56-78-9=6', '12+34+56-7-89=6', '1-2+34-5+67-89=6'], ['1-  
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[illegible]

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67+89=45'], ['12+3-4+5+6+7+8+9=46', '1-2+34-5-6+7+8+9=46', '1+2+34+5-6-7+8+9=46', '1+2+34-
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45+6+7+89=53', '12-3+4-56+7+89=53', '1-23+4-5-6-7+89=53'], ['12+3+4+5+6+7+8+9=54', '1-23-

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 '1+2+3-4+5+67-8+9=75', '12-3+4+56+7+8-9=75', '1+2-3+4+5+67+8-9=75', '1+23-4+5+67-8-9=75',
 '12-3-4-5+6+78-9=75', '123+45-6-78-9=75', '12-34-5+6+7+89=75', '1-23+4+5+6-7+89=75', '1-2-3-
 4-5+6-7+89=75', '1+2-3+4-5-6-7+89=75'], ['1+2-3-4+56+7+8+9=76', '12+3+45+6-7+8+9=76',
 '1+2+3+4+56-7+8+9=76', '12-3+4-5+67-8+9=76', '12-34+5+6+78+9=76', '1-2-3+4-5-6+78+9=76',
 '123-45+6-7+8-9=76', '1+23+4+56-7+8-9=76', '12-3-4+5+67+8-9=76', '1+2-3-4+5+6+78-9=76', '1-
 2+3+4-5+6+78-9=76', '1+2-34+5+6+7+89=76', '12-3-4-5-6-7+89=76', '12-3+45-67+89=76'], ['1-
 2+3+45+6+7+8+9=77', '12+3-4+56-7+8+9=77', '1-2+3-4-5+67+8+9=77', '12-3+4+56+7-8+9=77',
 '1+2-3+4+5+67-8+9=77', '12+34-56+78+9=77', '123+4-56+7+8-9=77', '1-2+3+4+5+67+8-9=77',
 '12+3+4-5-6+78-9=77', '1-23+4+5-6+7+89=77', '1-2-3-4-5-6+7+89=77', '1+2+34-56+7+89=77',

'1+2-3-4+5-6-7+89=77', '1-2+3+4-5-6-7+89=77'], ['12+3+45-6+7+8+9=78', '1-2+3-4+56+7+8+9=78',
 '123-45+6-7-8+9=78', '1+23+4+56-7-8+9=78', '12-3-4+5+67-8+9=78', '1-2-3-4+5-6+78+9=78',
 '1+2+3-4-5-6+78+9=78', '123-45-6+7+8-9=78', '12+34+56-7-8-9=78', '1-2+34-5+67-8-9=78', '1-
 2+3-4+5+6+78-9=78', '1+2+3+4+5-6+78-9=78', '1+23-4-5-6+78-9=78', '123+45+6-7-89=78'], ['12-
 3+4+56-7+8+9=79', '1-2-3+4-5+67+8+9=79', '123+4-56+7-8+9=79', '1-2+3+4+5+67-8+9=79', '1-
 2+34+56+7-8-9=79', '12+3-4+5-6+78-9=79', '1-23+4-5+6+7+89=79', '1+2-3-4-5+6-7+89=79', '1-
 2+3-4+5-6-7+89=79', '123-4+56-7-89=79'], ['1-2-3+4+56+7+8+9=80', '123-45-6+7-8+9=80', '1-
 23+4+5+6+78+9=80', '1-2-3-4-5+6+78+9=80', '1+2-3+4-5-6+78+9=80', '12+3+4-5+67+8-9=80', '1-
 2-3+4+5+6+78-9=80', '1+2+3+4-5+6+78-9=80', '123+45-6+7-89=80'], ['12+34+5+6+7+8+9=81',
 '1+2+3+45+6+7+8+9=81', '123+4-56-7+8+9=81', '1-2-3-4+5+67+8+9=81', '1+2+3-4-5+67+8+9=81',
 '12-3-4-5-6+78+9=81', '1+23+45+6+7+8-9=81', '12+3+4+56+7+8-9=81', '1-2+34+56-7+8-9=81',
 '1+2+3+4+5+67+8-9=81', '1+23-4-5+67+8-9=81', '12+3-4-5+6+78-9=81', '12-3+4+5-6+78-9=81', '1-
 23-4+5+6+7+89=81', '1+23-45+6+7+89=81', '1+2-3-4-5-6+7+89=81', '1-2+3-4-5+6-7+89=81', '1-2-
 3+4+5-6-7+89=81', '1+2+3+4-5-6-7+89=81'], ['1+2+3-4+56+7+8+9=82', '123-45-6-7+8+9=82',
 '123+4+5-67+8+9=82', '12+3+4-5+67-8+9=82', '1+2-3-4+5-6+78+9=82', '1-2+3+4-5-6+78+9=82',
 '1+23-4+56+7+8-9=82', '12+3-4+5+67+8-9=82', '1+2+34-5+67-8-9=82', '1+2+3-4+5+6+78-9=82',
 '12+3-4-5-6-7+89=82', '12+3+45-67+89=82'], ['1+2-3+4-5+67+8+9=83', '1+23+45+6+7-8+9=83',
 '12+3+4+56+7-8+9=83', '1-2+34+56-7-8+9=83', '1+2+3+4+5+67-8+9=83', '1+23-4-5+67-8+9=83',
 '1+2+34+56+7-8-9=83', '1+23+4+5+67-8-9=83', '12-3+4-5+6+78-9=83', '1-2+3-4-5-6+7+89=83', '1-
 2-3+4-5+6-7+89=83', '1+2+3-4+5-6-7+89=83', '1+234-56-7-89=83'], ['12-3+45+6+7+8+9=84', '1+2-
 3+4+56+7+8+9=84', '12-3-4-5+67+8+9=84', '1+23-4+56+7-8+9=84', '12+3-4+5+67-8+9=84', '1+2-
 3-4-5+6+78+9=84', '1-2+3-4+5-6+78+9=84', '12-3+4+5+67+8-9=84', '123-4-5-6-7-8-9=84',
 '123+45-67-8-9=84', '1+2-3+4+5+6+78-9=84', '12-3+4-5-6-7+89=84', '1+234+5-67-89=84'], ['12-3-
 4+56+7+8+9=85', '1+23+45+6-7+8+9=85', '12+3+4+56-7+8+9=85', '1+2-3-4+5+67+8+9=85', '1-
 2+3+4-5+67+8+9=85', '1+2+34+56-7+8-9=85', '12-3-4+5+6+78-9=85', '12-34+5+6+7+89=85', '1-2-
 3+4-5-6+7+89=85', '1-2-3-4+5+6-7+89=85', '1+2+3-4-5+6-7+89=85', '1+2-3+4+5-6-7+89=85'], ['1-
 2+3+4+56+7+8+9=86', '1+23-4+56-7+8+9=86', '12-3+4+5+67-8+9=86', '1-2+3-4-5+6+78+9=86', '1-
 2-3+4+5-6+78+9=86', '1+2+3+4-5-6+78+9=86', '1-2+3+4+5+6+78-9=86', '1+23+4-5-6+78-9=86', '1-
 23+45-6+78-9=86', '12+34-56+7+89=86', '12-3-4+5-6-7+89=86'], ['1+23+45-6+7+8+9=87', '123-4-
 56+7+8+9=87', '1-2+3-4+5+67+8+9=87', '1+2+34+56-7-8+9=87', '12+3-4-5-6+78+9=87',
 '12+3+4+5-6+78-9=87', '123+45+6-78-9=87', '1-2-3-4+5-6+7+89=87', '1+2+3-4-5-6+7+89=87',
 '1+2-3+4-5+6-7+89=87', '1-2+3+4+5-6-7+89=87', '123+4+56-7-89=87'], ['1-2-3+4-5+6+78+9=88',
 '1+2+3-4+5-6+78+9=88', '1-2+34+5+67-8-9=88', '1+23-4+5-6+78-9=88', '123-4+56-78-9=88', '12-
 3-4-5+6-7+89=88'], ['1-2-3+4+5+67+8+9=89', '1+2+3+4-5+67+8+9=89', '12-3+4-5-6+78+9=89',
 '1+23+4-5+67+8-9=89', '1-23+45+67+8-9=89', '12+3+4-5+6+78-9=89', '1-23+4+5+6+7+89=89', '1-
 2-3-4-5+6+7+89=89', '1+2-3+4-5-6+7+89=89', '1+2-3-4+5+6-7+89=89', '1-2+3+4-5+6-7+89=89', '1-
 23-45+67+89=89'], ['12+3+45+6+7+8+9=90', '1+2+3+4+56+7+8+9=90', '12+3-4-5+67+8+9=90', '1-
 2-3-4+5+6+78+9=90', '1+2+3-4-5+6+78+9=90', '1+2-3+4+5-6+78+9=90', '123-45+6+7+8-9=90',
 '1+23+4+56+7+8-9=90', '12+3+4+5+67+8-9=90', '1+2+3+4+5+6+78-9=90', '1+23-4-5+6+78-9=90',
 '1-2-34+56+78-9=90', '12-3-4-5-6+7+89=90', '12+3+4-5-6-7+89=90'], ['12+3-4+56+7+8+9=91',
 '1+2+3-4+5+67+8+9=91', '1+23+4-5+67-8+9=91', '1-23+45+67-8+9=91', '12-3-4+5-6+78+9=91',
 '1+23-4+5+67+8-9=91', '12+34-5+67-8-9=91', '1-2-3+45+67-8-9=91', '12+3-4+5+6+78-9=91', '1-
 2+34-5-6+78-9=91', '1+2-3-4+5-6+7+89=91', '1-2+3+4-5-6+7+89=91', '1-2+3-4+5+6-7+89=91',
 '1+2+3+4+5-6-7+89=91', '1+23-4-5-6-7+89=91', '1+23+45-67+89=91'], ['12-3+4-5+67+8+9=92',

Index	Type	Size	Value
87	list	6	['1-2-3+4-5+6+7+8+9=88', '1+2+3-4+5-6+7+8+9=88', '1-2+3+5+67-8-9=88', ' ...
33	list	7	['12+3-4+5-6+7+8+9=34', '12-3+4+5+6-7+8+9=34', '1+2+3+5-6+7-8+9=34', ' ...
69	list	7	['12-3+4+5+6-7+8+9=70', '1+2-3+4+5+6-7+8+9=70', '1-2+3+4+5+67-8+9=70', ' ...
96	list	7	['1-2+3+4+5+67-8+9=97', '12+3-4+5-6+7+8+9=97', '1-2+3+5+67-8-9=97', '1- ...
3	list	8	['1+2-3+4+5+6+7+8+9=4', '12-3-4-5-6-7+8+9=4', '12-3+45-67+8+9=4', '12+3 ...
7	list	8	['12+3-4-5-67-8+9=0', '12-3+4-5+6-7-8+9=8', '12-3+4-5-6+7+8-9=8', '12 ...
15	list	8	['12-3-4-5+6-7+8+9=16', '12+3+4-5-6+7-8+9=16', '12+3-4+5+6-7-8+9=16', ...
51	list	9	['1-2+3+4+5+6+7-8+9=52', '1+2+3-4+5+6-7-8+9=52', '12-3+4+5-6-7+8-9=52', ' ...
79	list	9	['1-2-3+4+5+67-8+9=80', '123-45-6+7-8+9=80', '1-23+4+5+6+7+8+9=80', '1- ...
97	list	9	['12+3+4-5+67+8+9=98', '1-2-3+4+5+6+7+8+9=98', '1+2+3+4-5+6+7+8+9=98', ' ...
42	list	10	['1+23-4+5-6+7+8+9=43', '12+3+4-5-6+7-8+9=43', '1-2-3+45-6+7-8+9=43', ' ...
78	list	10	['12-3+4+5+6-7+8+9=79', '1-2-3+4-5+67+8+9=79', '123+4-5+67-8+9=79', '1- ...
94	list	10	['123+4-5+6+7+8+9=95', '1-2+3+4+5+67+8+9=95', '12+3+4-5-6+7+8+9=95', '1- ...
1	list	11	['12-3-4-5-6+7-8+9=2', '12+3+4-5-6-7-8+9=2', '123+4-5-6+7+8+9=2', '12+3- ...
11	list	11	['12-3+4-5-6-7+8+9=12', '12-3-4+5-6+7-8+9=12', '12+3+4+5-6-7-8+9=12', ...
17	list	11	['12-3-4-5-6+7+8+9=18', '12+3+4-5-6-7+8+9=18', '12+3-4+5-6+7-8+9=18', ...
21	list	11	['12+3-4-5+6-7+8+9=22', '12-3+4+5-6-7+8+9=22', '12-3+4-5+6+7-8+9=22', ' ...
60	list	11	['1+2-3+4+5+6-7+8+9=61', '1-23+4-5+67+8+9=61', '1-2+3+4+5+6+7-8+9=61', ' ...
85	list	11	['1-2+3+4+5+6+7+8+9=86', '1+23-4+5+6-7+8+9=86', '12-3+4+5+67-8+9=86', '1 ...
92	list	11	['12-3+4+5+6+7+8+9=93', '1+2-3+4+5+67+8+9=93', '1+23-4+5+67-8+9=93', '1 ...
93	list	11	['123-4+5-6-7+8+9=94', '1+23+4+5+6-7+8+9=94', '12-3-4+5+67+8+9=94', '1+2 ...
95	list	11	['123+45-6+7+8+9=96', '12+3+4+5+6-7+8+9=96', '1-2+3+4-5+67-8+9=96', '1-2+ ...
99	list	11	['1+23-4+5+6+7+8+9=100', '12+3-4+5+67+8+9=100', '1+2+3+4-5+67-8+9=100', ' ...
5	list	12	['12+3-4-5+6-7-8+9=6', '12-3+4+5-6-7-8+9=6', '1+23+4+5+6-7+8+9=6', '12+3 ...

Index	Type	Size	Value
9	list	12	['12x3-4-5-6-7x8y-10', '12x3+45-67x8y-10', '12-3x4-5-6+7-8x9-10', '1 ...
40	list	12	['1x2-3x45x6+7x8y-49', '1x23x45+5x6-7x8y-49', '1x2-3x45-6-7x8y-49', ' ...
73	list	12	['123-4x5-6+7x8y-74', '12x3x45+6x7-8x9-74', '1x2x3x4x5x6+7-8x9-74', '12 ...
81	list	12	['1x2x3-4x5x6+7x8y-82', '123-45-6-7x8y-82', '123x45-67x8y-82', '12x ...
84	list	12	['12-3-4x5x6+7x8y-85', '1x23x45x6-7x8y-85', '12x3x4x5x6-7x8y-85', '1x ...
86	list	12	['1x23x45-6+7x8y-87', '123-4-5x6+7x8y-87', '1-2x3-4x5x6+7x8y-87', '1x ...
88	list	12	['1-2-3x4x5x6+7x8y-89', '1x2x3x4-5x67x8y-89', '12-3x4-5-6x7x8y-89', ' ...
24	list	13	['1-2-3x4-5x6+7x8y-25', '1x2x3-4x5-6x7x8y-25', '1x2-3x4x5x6-7x8y-25 ...
95	list	13	['1-2x3x4x5-6x7x8y-56', '1x2x3x4x5x6x7-8x9-56', '12-3x4x5-6x7-8x9-56', ' ...
61	list	13	['1x2x3x4-5x6+7x8y-62', '1-23x4x5x6+7x8y-62', '1x2-3-4x5x6-7x8y-62', ' ...
64	list	13	['1-2x3x4x5-6x7x8y-65', '12x3x4x5x6x7-8x9-65', '1x2x3x4x5x6x7-8x9-65', ' ...
74	list	13	['1x2-3x4x5x6x7x8y-75', '1x2-3-4-5x67x8y-75', '12x3-4x5x6x7-8x9-75', ' ...
82	list	13	['1x2-3x4-5x67x8y-83', '1x2x3x4x5x6x7-8x9-83', '12x3x4x5x6x7-8x9-83', '1 ...
83	list	13	['12-3x4x5x6x7x8y-84', '1x2-3x4x5x6x7x8y-84', '12-3-4-5x67x8y-84', '1 ...
91	list	13	['12-3x4-5x67x8y-92', '123-4x5x6x7-8x9-92', '1x23x4x5x6x7-8x9-92', '12x ...
25	list	14	['12-3x4-5-6x7x8y-26', '12-3-4x5x6-7x8y-26', '12x3x4x5-6x7-8x9-26', '1x ...
30	list	14	['1x2-3-4x5x6x7x8y-31', '1-2x3x4-5x6x7x8y-31', '1x2x3x4x5x6x7x8y-31 ...
34	list	14	['1-2-3x4x5x6x7x8y-35', '1x2x3x4-5x6x7x8y-35', '1x2-3x4x5x6-7x8y-35', ...
56	list	14	['12x3x4-5x6-7x8y-57', '1-2-3x4x5x6-7x8y-57', '12-3x4x5x6x7-8x9-57', '1x ...
63	list	14	['12x3x4x5-6-7x8y-64', '1-2x3-4x5x6-7x8y-64', '123-4-5-67x8y-64', '1x ...
70	list	14	['12x3x4-5x6+7x8y-71', '1-2-3x4x5x6+7x8y-71', '12-3-4x5x6-7x8y-71', '1 ...
75	list	14	['1x2-3-4x5x6+7x8y-76', '12x3x4x5x6-7x8y-76', '1x2x3x4x5x6-7x8y-76', ' ...
76	list	14	['1-2x3x4x5x6+7x8y-77', '12x3-4x5x6-7x8y-77', '1-2x3-4-5x67x8y-77', ' ...
77	list	14	['12x3x4x5-6x7x8y-78', '1-2x3-4x5x6x7x8y-78', '123-4x5x6-7-8x9-78', '1x ...

Index	Type	Size	Value
89	list	14	['12x3x4x5x6x7x8y-90', '1x2x3x4x5x6x7x8y-90', '12x3-4-5x67x8y-90', '1 ...
13	list	15	['12x3x4-5x6x7x8y-14', '12-3-4x5-6-7x8y-14', '12-3-4-5x6x7-8x9-14', '1 ...
19	list	15	['12x3-4x5-6-7x8y-20', '12x3-4-5x6x7-8x9-20', '12-3x4x5-6x7-8x9-20', ...
27	list	15	['12-3-4x5-6x7x8y-28', '12x3x4x5-6-7x8y-28', '123-4x5-67x8y-28', '12 ...
43	list	15	['12x3x4-5x6x7x8y-44', '1-2x3x4-5x6-7x8y-44', '12x3x4x5-6-7x8y-44', '1 ...
46	list	15	['1x23x4x5x6x7-8x9-47', '1x2-3x4x5-6x7-8x9-47', '1-2x3x4x5x6-7-8x9-47', ...
65	list	15	['1-2-3x4x5x6-7x8y-66', '1x2x3-4x5x6x7-8x9-66', '123-4x5-6-7-8x9-66', '1 ...
66	list	15	['12x3x4x5x6-7x8y-67', '1x2x3x4x5x6-7x8y-67', '12-3x4x5x67x8y-67', '1x ...
67	list	15	['1-2x3x4x5x6x7x8y-68', '1x2x3-4x5x6-7x8y-68', '12-3x4x5x6x7-8x9-68', ' ...
72	list	15	['1x23x4x5-6-7x8y-73', '123-4-5x6-7x8y-73', '1-2-3x4x5x67-8x9-73', '1x ...
12	list	16	['12-3x4x5x6x7x8y-13', '1-2-3x4-5-6x7x8y-13', '1-2-3-4x5x6-7x8y-13', ...
20	list	16	['1x2-3-4-5x6x7x8y-21', '1-2x3-4x5-6x7x8y-21', '1-2-3x4x5x6-7x8y-21 ...
39	list	16	['12-3-4x5x6x7x8y-40', '12x3x4x5x6-7x8y-40', '1-23-4x5x6-7x8y-40', ' ...
47	list	16	['12-3x4x5x6x7x8y-48', '1x2x3x4-5x6-7x8y-48', '1-23x4x5x6-7x8y-48', ' ...
54	list	16	['1x23-4x5x6x7x8y-55', '12x3x4x5-6-7x8y-55', '1x2x3x4x5-6-7x8y-55', ' ...
57	list	16	['1-2x3x4-5x6x7x8y-58', '12-3x4x5x6x7x8y-58', '1x2x3x4x5x6-7x8y-58', '1 ...
90	list	16	['12x3-4x5x6x7x8y-91', '1x2x3-4x5x67x8y-91', '1x23x4-5x67-8x9-91', '1 ...
6	list	17	['1-23x4-5x6x7x8y-7', '1x2-3-4-5x6-7x8y-7', '1-2x3-4x5-6-7x8y-7', ' ...
16	list	17	['1-23x4x5x6x7x8y-17', '1-2-3-4-5x6x7x8y-17', '1x2-3x4-5-6x7x8y-17' ...
29	list	17	['12-3-4-5x6x7x8y-10', '12x3x4-5x6-7x8y-10', '12x3-4x5x6x7-8x9-10', ...
37	list	17	['12-3x4-5x6x7x8y-18', '12x3x4x5x6x7-8x9-18', '1-23-4x5x6x7-8x9-18', ' ...
40	list	17	['1-2x3x4x5x6x7x8y-41', '1x23x4-5-6x7x8y-41', '1-23x4x5-6x7x8y-41', ...
49	list	17	['1x2x3x4-5-6x7x8y-50', '1-2-3x4x5x6-7-8x9-50', '1-2x3-4x5x6x7x8y-50', ' ...
52	list	17	['1x23x4-5x6x7x8y-53', '1-23x4x5x6x7x8y-53', '1-23-4-5x67x8y-53', '1 ...

Index	Type	Size	Value
58	list	17	['12x3x4-5-6x7x8y-59', '1-2-3x4x5-6x7x8y-59', '1x2-3x4x5x6x7-8x9-59', ' ...
59	list	17	['1x2x3x4x5-6x7x8y-60', '1x2-3-4x5x6x7-8x9-60', '12x3x4x5x6-7-8x9-60', ...
68	list	17	['12x3x4x5-6x7x8y-69', '1x2x3x4x5-6x7x8y-69', '12-3-4x5x6x7-8x9-69', '1 ...
71	list	17	['1x2x3x4x5x6x7x8y-72', '12-3x4x5-6x7x8y-72', '1-2-3-4x5x6x7x8y-72', ' ...
80	list	17	['1x23x4x5x6x7x8y-99', '12x3x4x5x6x7x8y-99', '1-2x3x4x5x6-7x8y-99', '1x ...
2	list	18	['12-3x4-5x6x7x8y-3', '1-23x4x5x6-7x8y-3', '1-2-3-4-5x6-7x8y-3', '1x ...
23	list	18	['12x3-4-5-6x7x8y-24', '12-3x4-5x6-7x8y-24', '12-3-4x5x6x7-8x9-24', ...
38	list	18	['1x2-3x4x5x6x7x8y-39', '1x23x4-5x6-7x8y-39', '1-23x4x5x6-7x8y-39', ...
41	list	18	['12x3x4x5-6x7x8y-42', '1-2x3x4x5-6-7x8y-42', '1-2x3x4-5x6x7-8x9-42', ...
45	list	18	['12x3-4x5x6x7x8y-46', '1-2x3x4-5-6x7x8y-46', '1x2x3x4x5-6-7x8y-46', ...
28	list	19	['1x2-3x4-5x6x7x8y-29', '1-2x3x4x5-6x7x8y-29', '1x23-4x5-6-7x8y-29' ...
31	list	19	['12x3x4-5-6x7x8y-32', '12x3-4x5x6-7x8y-32', '1-2x3x4-5-6-7x8y-32', ...
32	list	19	['1-2x3-4x5x6x7x8y-33', '1x2x3x4x5-6x7x8y-33', '1x23-4-5-6x7x8y-33' ...
35	list	19	['12x3-4-5x6x7x8y-36', '12-3x4x5-6x7x8y-36', '1x2x3x4-5-6-7x8y-36', ...
36	list	19	['1x2x3-4x5x6x7x8y-37', '1x23x4x5-6-7x8y-37', '1x23x4-5x6x7-8x9-37', ...
50	list	19	['1x23x4x5-6x7x8y-51', '1-2x3x4x5-6-7x8y-51', '12x3x4x5x6-7-8x9-51', ' ...
80	list	19	['12x3x4x5x6x7x8y-81', '1x2x3x4x5x6x7x8y-81', '123x4-5x6-7x8y-81', '1x ...
14	list	20	['1-2-3-4x5-6x7x8y-15', '1x2x3-4-5-6x7x8y-15', '1x2-3x4-5x6-7x8y-15 ...
18	list	20	['1x2-3-4x5-6x7x8y-19', '1-2x3x4-5-6x7x8y-19', '1-2x3-4x5x6-7x8y-19 ...
4	list	21	['1-23x4x5-6x7x8y-5', '1-2-3-4-5-6x7x8y-5', '1x2x3x4-5x6x7x8y-5', '1x ...
10	list	21	['1-2x3-4-5-6x7x8y-11', '1-2-3x4-5x6-7x8y-11', '1x2x3-4x5-6-7x8y-11 ...
26	list	21	['1-2-3-4x5x6x7x8y-27', '1x2x3-4-5x6x7x8y-27', '1x2-3x4x5-6x7x8y-27 ...
53	list	21	['12x3x4x5x6x7x8y-54', '1-23-4x5x6x7x8y-54', '1-2x3x4x5x6-7x8y-54', ' ...
8	list	22	['1-23-4x5x6x7x8y-9', '1x23-4x5x6x7x8y-9', '1x2-3-4-5-6x7x8y-9', '1 ...

0	list	22	['1-23-4+5+6+7+8+9=9', '1+23-45+6+7+8+9=9', '1+2-3-4-5-6+7+8+9=9', '1- ...
62	list	22	['1+23+4+5+6+7+8+9=63', '1+2-3+45-6+7+8+9=63', '1-2+3+45+6-7+8+9=63', ...
22	list	23	['1-2+3-4-5+6+7+8+9=23', '1-2-3+4+5-6+7+8+9=23', '1+2+3+4-5-6+7+8+9=23 ...
0	list	26	['12-34+5-6+7+8+9=1', '1-2+34-56+7+8+9=1', '1-2-3-4+5-6-7+8+9=1', '1+2 ...
44	list	26	['1+2+3+4+5+6+7+8+9=45', '1+23-4-5+6+7+8+9=45', '1-2-3+4+5+6+7+8+9=45', ...

Max : 1 and 45, both have 26 formulas in total.

list	26	['12-34+5-6+7+8+9=1', '1-2+34-56+7+8+9=1', '1-2-3-4+5-6-7+8+9=1', '1+2 ...
list	26	['1+2+3+4+5+6+7+8+9=45', '1+23-4-5+6+7+8+9=45', '1-2-3+4+5+6+7+8+9=45', ...

Min: 88, only 6 formulas in total.

Index	Type	Size	Value
87	list	6	['1-2-3+4-5+6+7+8+9=88', '1+2+3-4+5-6+7+8+9=88', '1-2+3+4+5+6+7-8-9=88', ' ...

Instructions:

Thanks to Yunqiu Zhou's help, he explained to me "import numpy as np" in problem 2.

Thanks to Zelin Mai's help, he explained to me what is asked in problem 5, and let me know about "split()" function and "eval()" function. I could finish the problem 5 with his help.

Thanks for www.runoob.com, which is a very useful website for the fresh like me, I learnt about basic grammar of python here.

"<https://www.mathsisfun.com/pascals-triangle.html>", this link in webpage let me know some details about Pascal's Triangle.

Especially, I am very grateful to Wenfu Sun who has helped me solve the problem that the software("Spyder" and "Jupyter") cannot be used. At the same time, I've learnt a lot.