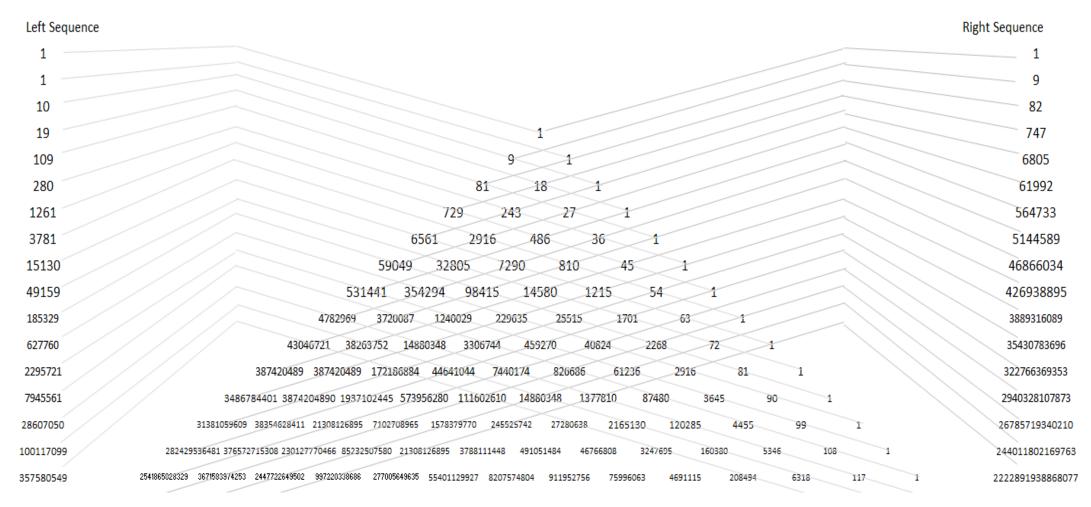# Skew Diagonals in Triangle A038291

Center-justified Triangle of Coefficients in Expansion of $(9 + x)^n$

Left Sequence		Right Sequence
1		1
1		9
10		82
19		747
109		6805
280		61992
1261		564733
3781		5144589
15130		46866034
49159		426938895
185329		3889316089
627760		35430783696
2295721		322766369353
7945561		2940328107873
28607050		26785719340210
100117099		244011802169763
357580549		2222891938868077

Triangle of coefficients:

```
1
9    1
81    18    1
729    243    27    1
6561    2916    486    36    1
59049    32805    7290    810    45    1
531441    354294    98415    14580    1215    54    1
4782969    3720087    1240029    229635    25515    1701    63    1
43046721    38263752    14880348    3306744    459270    40824    2268    72    1
387420489    387420489    172186884    44641044    7440174    826686    61236    2916    81    1
3486784401    3874204890    1937102445    573956280    111602610    14880348    1377810    87480    3645    90    1
31381059609    38354628411    21308126895    7102708965    1578379770    245525742    27280638    2165130    120285    4455    99    1
282429536481    376572715308    230127770466    85232507580    21308126895    3788111448    491051484    46766808    3247695    160380    5346    108    1
2541865828329    3671583374253    2447722649502    997220338686    277005649635    55401129927    8207574804    911952756    75996063    4691115    208494    6318    117    1
```

The numbers in diagonals pointing top-left are the numbers in rows of the triangle in **A317051.** Left sequence is **A015445** (Generalized Fibonacci numbers).

The numbers in diagonals pointing top-right are the numbers in rows of the triangle in **A317052.** Right sequence is **A099371.**

REFERENCE:
Shara Lalo and Zagros Lalo, Polynomial Expansion Theorems and Number Triangles, Zana Publishing, 2018, ISBN: 978-1-9995914-0-3