



Shamrock Paths:



- How many different ways can you spell Shamrock?
- Explain how you know your answer is correct.



S

H H

A A A

M M M M

R R R R R

O O O O O O

C C C C C C C

K K K K K K K K



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How Many Different Ways Can You Spell Shamrock?



S
 H H
 A A A
 M M M M
 R R R R R
 O O O O O O
 C C C C C C C
 K K K K K K K K

Shamrock has 8 letters, so find the sum of the 8th row of Pascal's triangle: 128. There will be 128 different ways to spell shamrock. The eighth row of Pascal's triangle tells you how many different ways you find that end at each of the K's.

1
 1 1
 1 2 1
 1 3 3 1
 1 4 6 4 1
 1 5 10 10 5 1
 1 6 15 20 15 6 1
 1 7 21 35 35 21 7 1