

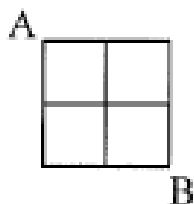
Goal: Solve pathway problems using permutations and Pascal's Triangle



Pathway problems are a type of counting situation used in networking problems. The simplest form of pathway is when there are only two options for directions.

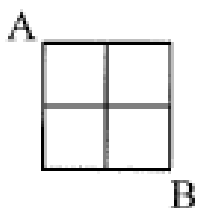
Consider the situation:

Count the number of different pathways to get from A to B moving only south and/or east.

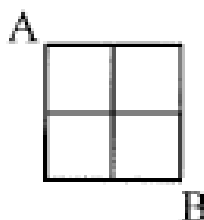


Rather than counting, we can solve questions like these using two methods.

Method 1: Permutations:



Method 2: Pascal's Triangle:



Example 1: Find the number of different pathways to get from A to B moving only south and/or east using two different methods.

