Let $R(i, j)$ be the number of routes from $(0, 0)$ to (i, j) where i and j are natural numbers. We have

1. $R(0, j) = 1$
2. $R(i, 0) = 1$
3. Consider positive i and j. (i, j) can be approached via either $(i - 1, j)$ and $(i, j - 1)$. Therefore $R(i, j) = R(i - 1, j) + R(i, j - 1)$.