



5. How many ways to rearrange the letters in GLACIER?

6. How many ways to rearrange the letters in KENTUCKY?

7. We need to choose 11 people out of 15. The 11 people are split into four groups of size  $4+3+3+1$ . We don't care about order within a group, but we do care which group a person is in. How many possibilities?

8. How many ways can you arrange two letters of the word HIPPOPOTAMUS?

9. How many ways can you arrange three letters of the word HIPPOPOTAMUS?