

Combinations

You can solve this with a simple backtracking approach:

- Maintain a current path (vector).
- At each step, decide whether to include the next number.
- Stop and record the combination when the path size reaches k .
- Use pruning so we don't go deeper when there aren't enough numbers left to fill the combination.

Complexity:

- Time: $O(\binom{n}{k} \cdot k)$ - every combination of size k is generated and copied.
- Space: $O(k)$ for the recursion stack (excluding the output).