

Journey Tickets

A "journey" is a sequence of flights (at least one). For example: **SOF-BRU-LON-NYC**. A journey can be broken into one or more "tickets", such that a ticket can contain one or more **sequential** flights. For example, the above journey can be broken into tickets in the following ways:

Breakup 1:

- ticket 1 - SOF-BRU-LON-NYC

Breakup 2:

- ticket 1 - SOF-BRU-LON
- ticket 2 - LON-NYC

Breakup 3:

- ticket 1 - SOF-BRU
- ticket 2 - BRU-LON-NYC

Breakup 4:

- ticket 1 - SOF-BRU
- ticket 2 - BRU-LON
- ticket 3 - LON-NYC

Provide a code snippet (in a language by your choice or in pseudo code) that given a number of flights N generates all possible breakups of a journey with N flights into tickets. A breakup consists of the indices of the flights that comprise the ticket. For the above example:

Input:

N=3

Output:

Breakup 1

- 0 1 2

Breakup 2

- 0 1
- 2

Breakup 3

- 0
- 1 2

Breakup 4

- 0
- 1
- 2