

Problem 3 – Panda Scotland Flag

Stoyan, a little Panda from Pleven's zoo has a great dream: to visit **Scotland** someday. Because of the budget limitations, it is not likely that Stoyan will visit Scotland soon, and he knows this, so Stoyan is playing every day by trying to draw the flag of Scotland in the sand, and of course, incorrectly. Once at the zoo a visitor left a tablet in the Stoyan's cage but without Internet. The only things found in the tablet were Nakov's C# lessons and a carefully installed C# development environment. Stoyan started learning C# - he has nothing else to do with a tablet without Internet. Now Stoyan is trying to write a program to print a special version of the Scotland's flag at the console.

Help the little Panda Stoyan to write a program that prints at the console the Scotland's flag of size **N**, following the examples below.

Input

The input data should be read from the console. It consists of a single line holding an **integer number N** – the size of the flag. The input data will always be valid and in the format described. There is no need to check it explicitly.

Output

Print at the console the Scotland's flag (Stoyan's version) like at the examples below.

Constraints

- The input number **N** always will be **odd** positive integer number [1...501].
- Allowed working time for your program: 0.25 seconds.
- Allowed memory: 16 MB.

Examples

Input	Output	Input	Output	Input	Output	Input	Output
3	A#B -C- D#E	5	A###B ~C#D~ --E-- ~F#G~ H###I	9	A#####B ~C#####D~ ~~E###F~~ ~~~G#H~~~ ----I---- ~~~J#K~~~ ~~L###M~~ ~N#####O~ P#####Q	21	A#####B ~C#####D~ ~~E#####F~~ ~~~G#####H~~~ ~~~~I#####J~~~~ ~~~~~K#####L~~~~~ ~~~~~M#####N~~~~~ ~~~~~O#####P~~~~~ ~~~~~Q###R~~~~~ ~~~~~S#T~~~~~ -----U----- ~~~~~V#W~~~~~ ~~~~~X###Y~~~~~ ~~~~~Z#####A~~~~~ ~~~~~B#####C~~~~~ ~~~~~D#####E~~~~~ ~~~~~F#####G~~~~~ ~~~~~H#####I~~~~~ ~~~J#####K~~~ ~L#####M~ N#####O