

291 The House Of Santa Claus

In your childhood you most likely had to solve the riddle of the house of Santa Claus. Do you remember that the importance was on drawing the house in a stretch without lifting the pencil and not drawing a line twice? As a reminder it has to look like shown in Figure 1.

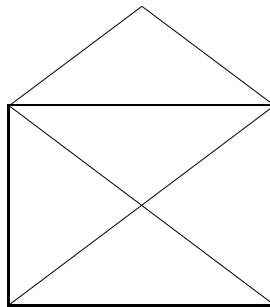


Figure 1: The House of Santa Claus

Well, a couple of years later, like now, you have to “draw” the house again but on the computer. As one possibility is not enough, we require *all* the possibilities when starting in the lower left corner. Follow the example in Figure 2 while defining your sketch.

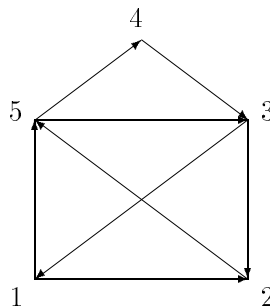


Figure 2: This Sequence would give the Outputline 153125432

All the possibilities have to be listed in the outputfile by increasing order, meaning that **1234...** is listed before **1235...** .

Output

So, an outputfile could look like this:

```
12435123
13245123
...
15123421
```