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Calculate the number of ways to color an **N** \* 3 grid using 3 colors. Adjacent squares in the grid should have different colors. Squares are considered adjacent if they share an edge.

**Input Format**

The first line contains an integer **N** denoting the number of rows.

**Output Format**

First line of output will tell the number of ways the grid can be colored if in every row the ends are of the same color.

Second line of output will tell the number of ways the grid can be colored if in every row the ends are of different colors.

Third line of output will tell the number of ways the grid can be colored.

**Constraints**

1 <= **N** <=100

**Sample Input**

1

Click and drag to move

**Sample Output**

6

6

12

Click and drag to move

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