Some sequences of bits (2) P34343_en

Write a program that prints the number of sequences made up of exactly z zeros and u ones that do not contain two consecutive zeros nor three consecutive ones.

For instance, there are 8 sequences for $z = 3$ and $u = 4$:

0101011 0101101 0110101 0110110 1010101 1010110 1011010 1101010

Input

Input consists of several pairs of natural numbers z and u, each between 0 and 90.

Output

For every pair of z and u, print the required number.

Sample input

```
0 0
1 1
3 4
65 90
```

Sample output

```
1
2
8
2529372610666365912
```

Problem information

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