Bánh Bò

Input file:	`standard input`
Output file:	`standard output`
Time limit:	15 seconds
Memory limit:	1024 megabytes

Ever since the Earth got destroyed, Trillian has been missing some Earth delicacies. Today, she had the spaceship's food machine generate for her a Vietnamese delicacy she once enjoyed: bánh bò hấp *(steamed chewy sponge cake).*

Trillian has an unlimited number of *bánh bò hấp* pieces. Each piece of *bánh bò hấp* is either *red* or *white*. She wants to assemble rc pieces of *bánh bò hấp* into a grid with dimensions $r \times c$, where each cell contains a single piece of *bánh bò hấp*. Thus, there are exactly 2^{rc} distinct ways to assemble *bánh bò hấp* into an $r \times c$ grid, since we consider pieces of the same color to be identical.

We say an assembly of *bánh bò hấp* is *uniform* if all 6×7 subgrids have the same number of red pieces. Consequently, in a uniform *bánh bò hấp* assembly, all 6×7 subgrids have the same number of white pieces as well. Note that an $r \times c$ grid has $(r-5)(c-6)$ subgrids of dimensions 6×7.

For example, Figure 1 illustrates a uniform assembly of 7×8 pieces of *bánh bò hấp*, where shaded cells represent red *bánh bò hấp* pieces and unshaded cells represent white *bánh bò hấp* pieces. Figure 2 shows that all four 6×7 subgrids have 6 red pieces and 36 white pieces.

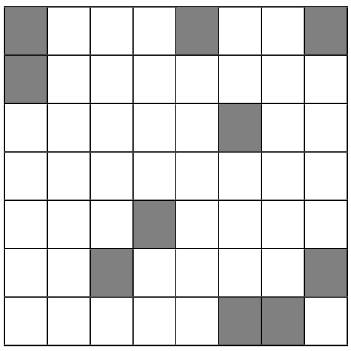

Figure 1: An example of uniform *bánh bò hấp* assembly.

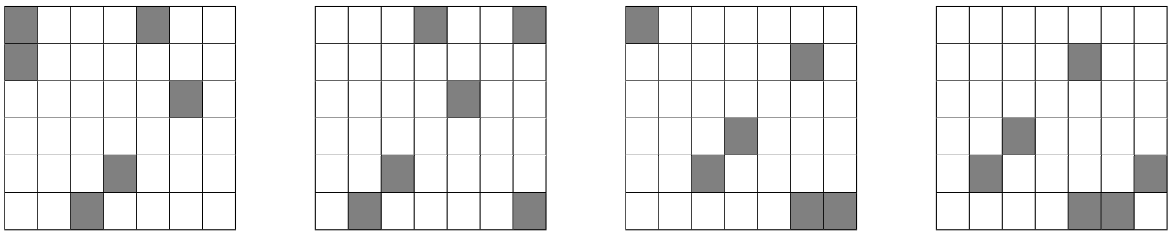

Figure 2: All four 6×7 subgrids of the uniform *bánh bò hấp* assembly illustrated in Figure 1.

Given r and c, where r **is a multiple of** 6 and c **is a multiple of** 7, Trillian would like to calculate the number of possible uniform *bánh bò hấp* assemblies modulo 998 244 353.

Input

Input consists of a single line containing two integers r and c ($6 \leq r \leq 66\,666$; r is a multiple of 6; $7 \leq c \leq 77\,777$; c is a multiple of 7).

Output

Output the number of possible uniform *bánh bò hấp* assemblies modulo 998 244 353.

Examples

standard input	standard output
6 7	780136139
12 14	22889737
12 42	96403614
42 14	94940316

Note

Explanation for the sample input/output #1

The output is 2^{42} modulo 998 244 353.