We are looking for the largest palindromic number (p), which is the product of two, three digit numbers, n and m.

The largest three digit number is 999.

Since $n * m$ can at most be $999 * 999 < 1000000\ (1000 * 1000)$.
The result of n * m can at most be six digits in length.

A palindromic number that is six digits in length can be written as:

$$p = [A][B][C][C][B][A], a \neq 0$$
$$p = 100001a + 10010b + 1100c$$

Using this information, we can generate any six-digit palindromic number.
Using a loop, let us create palindromic numbers from largest to smallest

$$999999 \rightarrow 998899 \rightarrow \cdots \rightarrow 101101 \rightarrow 100001$$

On each iteration of this loop, if the generated palindromic number is divisible by any three digit number n, and the result is a three digit number m, then the generated palindromic number is the largest palindromic number that is the product of two, three digit numbers, n and m.

The reason we need to check whether p/n = m is because there are cases where p/n > 999
Such as: 999999/999 = 1001, which is not a three digit number