

### 318. Maximum Product of Word Lengths

Given a string array words, return the maximum value of  $\text{length}(\text{word}[i]) * \text{length}(\text{word}[j])$  where the two words do not share common letters. If no such two words exist, return 0.

#### Example 1:

- **Input:** words = ["abcw","baz","foo","bar","xtfn","abcdef"]
- **Output:** 16
- **Explanation:** The two words can be "abcw", "xtfn".

#### Example 2:

- **Input:** words = ["a","ab","abc","d","cd","bcd","abcd"]
- **Output:** 4
- **Explanation:** The two words can be "ab", "cd".

#### Example 3:

- **Input:** words = ["a","aa","aaa","aaaa"]
- **Output:** 0
- **Explanation:** No such pair of words.

#### Constraints:

- $2 \leq \text{words.length} \leq 1000$
- $1 \leq \text{words}[i].\text{length} \leq 1000$
- words[i] consists only of lowercase English letters.