

# 422. Valid Word Square

## Description

Given an array of strings `words` , return `true` *if it forms a valid **word square*** .

A sequence of strings forms a valid **word square** if the `kth` row and column read the same string, where `0 <= k < max(numRows, numColumns)` .

Example 1:

a	b	c	d
b	n	r	t
c	r	m	y
d	t	y	e

**Input:** words = ["abcd","bnrt","crmy","dtye"]  
**Output:** true  
**Explanation:**  
The 1<sup>st</sup> row and 1<sup>st</sup> column both read "abcd".  
The 2<sup>nd</sup> row and 2<sup>nd</sup> column both read "bnrt".  
The 3<sup>rd</sup> row and 3<sup>rd</sup> column both read "crmy".  
The 4<sup>th</sup> row and 4<sup>th</sup> column both read "dtye".  
Therefore, it is a valid word square.

Example 2:

a	b	c	d
b	n	r	t
c	r	m	
d	t		

**Input:** words = ["abcd","bnrt","crm","dt"]  
**Output:** true  
**Explanation:**  
The 1<sup>st</sup> row and 1<sup>st</sup> column both read "abcd".  
The 2<sup>nd</sup> row and 2<sup>nd</sup> column both read "bnrt".  
The 3<sup>rd</sup> row and 3<sup>rd</sup> column both read "crm".  
The 4<sup>th</sup> row and 4<sup>th</sup> column both read "dt".  
Therefore, it is a valid word square.

Example 3:

b	a	l	l
a	r	e	a
r	e	a	d
l	a	d	y

**Input:** words = ["ball","area","read","lady"]  
**Output:** false  
**Explanation:**  
The 3<sup>rd</sup> row reads "read" while the 3<sup>rd</sup> column reads "lead".  
Therefore, it is NOT a valid word square.

Constraints:

- `1 <= words.length <= 500`
- `1 <= words[i].length <= 500`
- `words[i]` consists of only lowercase English letters.

