**Name:**

**Advanced Programming in Java**

**Lab Exercise 1.4.2024**

**Get Word Count**

Create a method that takes a string and returns the word count. The string will be a sentence.

**Examples**

countWords("Just an example here move along") ➞ 6

countWords("This is a test") ➞ 4

countWords("What an easy task, right") ➞ 5

**Triangular Number Sequence**

This Triangular Number Sequence is generated from a pattern of dots that form a triangle. The first 5 numbers of the sequence, or dots, are:

1, 3, 6, 10, 15

This means that the first triangle has just one dot, the second one has three dots, the third one has 6 dots and so on.

Write a function that returns the number of dots when given its corresponding triangle number of the sequence.

**Examples**

triangle(1) ➞ 1

triangle(6) ➞ 21

triangle(215) ➞ 23220

## Capture the Rook

Write a function that returns true if two rooks can attack each other, and false otherwise.

**Examples**

canCapture(["A8", "E8"]) ➞ true

canCapture(["A1", "B2"]) ➞ false

canCapture(["H4", "H3"]) ➞ true

canCapture(["F5", "C8"]) ➞ false

### Notes

* Assume no blocking pieces.
* Two rooks can attack each other if they share the same row (letter) or column (number).

## War of Numbers

There's a great war between the even and odd numbers. Many numbers already lost their lives in this war and it's your task to end this. You have to determine which group sums larger: the evens, or the odds. The larger group wins.

Create a function that takes an array of integers, sums the even and odd numbers separately, then returns the difference between the sum of the even and odd numbers.

### Examples

warOfNumbers([2, 8, 7, 5]) ➞ 2

// 2 + 8 = 10

// 7 + 5 = 12

// 12 is larger than 10

// So we return 12 - 10 = 2

warOfNumbers([12, 90, 75]) ➞ 27

warOfNumbers([5, 9, 45, 6, 2, 7, 34, 8, 6, 90, 5, 243]) ➞ 168

### Notes

The given array contains only positive integers.