

Find the Index of the First Occurrence in a String (Leetcode)

Given two strings **needle** and **haystack**, return the index of the first occurrence of **needle** in **haystack**, or **-1** if **needle** is not part of **haystack**.

Example 1:

Input: haystack = "sadbutsad", needle = "sad"

Output: 0

Explanation: "sad" occurs at index 0 and 6.

The first occurrence is at index 0, so we return 0.

Example 2:

Input: haystack = "leetcode", needle = "leeto"

Output: -1

Explanation: "leeto" did not occur in "leetcode", so we return -1.

Constraints:

- $1 \leq \text{haystack.length}, \text{needle.length} \leq 10^4$
- **haystack** and **needle** consist of only lowercase English characters.

<https://leetcode.com/problems/find-the-index-of-the-first-occurrence-in-a-string/>