**B.**

We assume S < A or A < S, so we can use one variable to calculate the time complexity

Since base case T(1) is a constant time:

A close up of text on a white background

Description automatically generated

C.

**Time complexity: O(n)** (n is the length of the longest word).

Reason: “programming” VS. “pin”

1st call: compare “p” and “p”

2nd call: pass in (rogramming and in) compare “r” and “i”

3rd call: pass in (ogramming and in) compare “o” and “i”

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9th call: pass in (ing and in) compare “i” and “i”

10th call: pass in (ng and n) compare “n” and “n”

11th call: string “pin” now is empty, return true