

3) (10 pts) DSN (Tries)

The word “intention” is such that four of its prefixes, “i”, “in”, “intent” and “intention” are words themselves. Write a function that takes in a pointer to the root of a trie storing a dictionary of words and returns the maximum number of words that are prefixes of a single word. Use the struct definition and function prototype given below.

```
typedef struct TrieNode {  
    struct TrieNode *children[26];  
    int flag; // 1 if the string is in the trie, 0 otherwise  
} TrieNode;
```

```
int maxNumPrefixWords(TrieNode* root) {
```

```
}
```