

/试编写算法，对一棵以孩子-兄弟链表表示的树统计叶子的个数

对以孩子-兄弟链表表示的树编写计算树的深度的算法/

```
#ifndef c_1105_//宏定义不可以数字开头
```

```
#define c_1105_
```

```
#include<stdio.h>
```

```
typedef char Elemtype;
```

```
typedef struct node{  
    Elemtype data;  
    struct node *firstchild,*nextsibling;  
}CSnode;
```

```
int getleafNum(CSnode *node){  
    if(node == NULL)  
        return 0;  
    if(node->firstchild == NULL)  
        return 1 + getleafNum(node->nextsibling);  
    else  
        return getleafNum(node->firstchild) + getleafNum(node->nextsibling);  
}
```

//求深度

```
int getDepth(CSnode *node) {  
    if (node == NULL)  
        return 0;
```

```
int childDepth = getDepth(node->firstchild); // 孩子子树深度  
int siblingDepth = getDepth(node->nextsibling); // 兄弟子树深度
```

```
if(childDepth + 1 > siblingDepth)  
    return childDepth + 1;  
else  
    return siblingDepth;  
}  
#endif
```