

/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/

```
#ifdef c_1105_ //宏定义不可以数字开头
```

```
#define c_1105_
```

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

```
typedef char Elemtpe;
```

```
typedef struct node{
```

```
Elemtpe 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
```