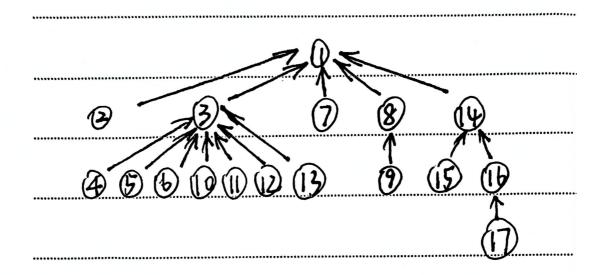
```
template <class T>
ostream& operator<<(ostream& out, const Set<T>& s) \{
    traverse(s, out);
    return out;
}
template <class T>
void traverse(const Set<T>& s, ostream& out) {
    if (!s.Empty()) {
       if (s.Elemtype == 0) {
            out << s.GetName() << "{";
        }
        else if (s.Elemtype == 1) {
           out << s.GetData();</pre>
           if (s.GetNext() != NULL) {
                out << ",";
            }
        }
        else {
            traverse(s.GetSubSet(), out);
           if (s.GetNext() != NULL) {
                out << ",";
            }
        }
        traverse(s.GetNext(), out);
    }
    else {
       out << "}";
    }
}
```

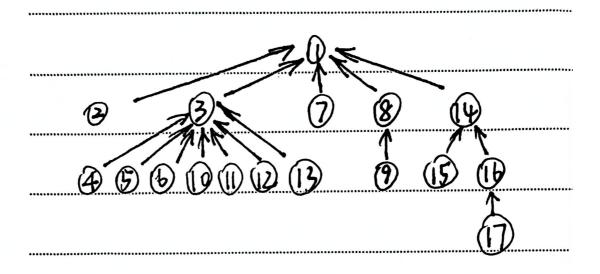
如果集合中包含有子集合,各个子集合之间没有重复的元素,采用广义表结构比较合适。

## 6.6

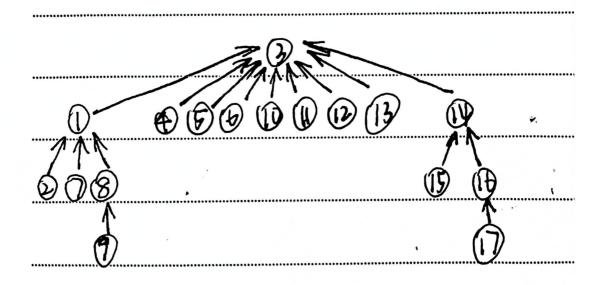
(1)



(2)



(3)



6.9

(1)

| 0  | 1 | 2  | 3  | 4 | 5  | 6  | 7  | 8  | 9 | 10 | 11 | 12 |
|----|---|----|----|---|----|----|----|----|---|----|----|----|
| 78 |   | 15 | 03 |   | 57 | 45 | 20 | 31 |   | 23 | 36 | 12 |
| 1  |   | 1  | 1  |   | 1  | 1  | 1  | 4  |   | 1  | 2  | 1  |

$$AVL_{succ} = \frac{1+1+1+1+1+1+4+1+2+1}{10} = \frac{7}{5}$$
 
$$AVL_{unsucc} = \frac{2+1+3+2+1+5+4+3+2+1+5+4+3}{13} = \frac{36}{13}$$

(2)

| 0  | 1 | 2  | 3  | 4 | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 |
|----|---|----|----|---|----|----|----|----|----|----|----|----|
| 78 |   | 15 | 03 |   | 57 | 45 | 20 | 31 | 36 | 23 |    | 12 |
| 1  |   | 1  | 1  |   | 1  | 1  | 1  | 3  | 5  | 1  |    | 1  |

$$AVL_{succ} = rac{1+1+1+1+1+1+3+5+1+1}{10} = rac{8}{5}$$