

```
function MakeSet(x)
```

```
    x.parent := x
```

```
    x.rank   := 1
```

```
function Union(x, y)
```

```
    xRoot := Find(x)
```

```
    yRoot := Find(y)
```

```
    if xRoot.rank > yRoot.rank
```

```
        yRoot.parent := xRoot
```

```
    else if xRoot.rank < yRoot.rank
```

```
        xRoot.parent := yRoot
```

```
    else // xRoot.rank == yRoot.rank
```

```
        yRoot.parent := xRoot
```

```
        xRoot.rank := xRoot.rank + 1
```

```
function Find(x)
```

```
    if x.parent != x
```

```
        x.parent := Find(x.parent)
```

```
    return x.parent
```