

```
algorithm MAKESET( $x$ )  
    parent[ $x$ ] =  $x$   
    Rang[ $x$ ] = 0  
end algorithm
```

```
algorithm FINDSET( $x$ )  
    if  $x \neq \text{parent}[x]$  then  
         $\text{parent}[x] = \text{FINDSET}(\text{parent}[x])$   
    end if  
    return  $\text{parent}[x]$   
end algorithm
```

```
algorithm DSFUNION( $x, y$ )  
    DSFLINK(FINDSET( $x$ ), FINDSET( $y$ ))  
end algorithm
```

```
algorithm DSFLINK( $x, y$ )  
  if Rang[ $x$ ] > Rang[ $y$ ] then  
    parent[ $y$ ] =  $x$   
  else  
    parent[ $x$ ] =  $y$   
    if Rang[ $x$ ] = Rang[ $y$ ] then  
      Rang[ $y$ ] = Rang[ $y$ ] + 1  
    end if  
  end if  
end algorithm
```