

```
definition uf_union :: uf  $\Rightarrow$  nat  $\Rightarrow$  nat  $\Rightarrow$  uf Heap where  
uf_union u i j  $\equiv$  do {  
  let (r,p) = u;  
  ci  $\leftarrow$  uf_rep_of_c p i;  
  cj  $\leftarrow$  uf_rep_of_c p j;  
  if (ci=cj) then return (r,p)  
  else do {  
    ri  $\leftarrow$  Array.nth r ci;  
    rj  $\leftarrow$  Array.nth r cj;  
    if ri<rj then do {
```