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**Algorithm 3:** function  $p\_merge(P_1, P_2)$ 

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**Input:** Two partitions  $P_1$  and  $P_2$ **Output:** A partition  $P$ **Notation:**  $s$  and  $t$  are two set iterators and their corresponding set are indicated by  $s^*$  and  $t^*$ .

```
1 foreach ( set  $s^*$  in  $P_2$ ) do
2   |  $P_1.push\_back(s^*)$ 
   end
3 for ( $s = P_1.begin()$ ;  $s \neq P_1.end()$ ; ++  $s$ ) do
4   | for ( $t = s.next()$ ;  $t \neq P_1.end()$ ; ++  $t$ ) do
5     | if ( $s^* \cap t^* \neq \emptyset$ ) then
6       |  $P_1.push\_front(s^* \cup t^*)$ 
7       |  $P_1.delete(s^*)$ 
8       |  $P_1.delete(t^*)$ 
9       |  $s = P_1.begin()$ 
10      | break
     | end
   | end
  end
11 set  $P = P_1$ 
return  $P$ 
```

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