

### There are 96 T<sub>0</sub>-covers of a labeled 3-set :

(A cover of a set is a T<sub>0</sub>-cover if for every two distinct points of the set there exists a member (block) of the cover containing one but not the other point)

3 2-element T<sub>0</sub>-covers:

- 1             $\{\{2, 3\}, \{1, 3\}\}$
- 2             $\{\{2, 3\}, \{1, 2\}\}$
- 3             $\{\{1, 3\}, \{1, 2\}\}$

29 3-element T<sub>0</sub>-covers:

- 1             $\{\{3\}, \{2\}, \{1\}\}$
- 2             $\{\{3\}, \{2\}, \{1, 3\}\}$
- 3             $\{\{3\}, \{2, 3\}, \{1\}\}$
- 4             $\{\{3\}, \{2, 3\}, \{1, 3\}\}$
- 5             $\{\{3\}, \{2\}, \{1, 2\}\}$
- 6             $\{\{3\}, \{2\}, \{1, 2, 3\}\}$
- 7             $\{\{3\}, \{2, 3\}, \{1, 2\}\}$
- 8             $\{\{3\}, \{2, 3\}, \{1, 2, 3\}\}$
- 9             $\{\{2\}, \{2, 3\}, \{1\}\}$
- 10            $\{\{2\}, \{2, 3\}, \{1, 3\}\}$
- 11            $\{\{2\}, \{2, 3\}, \{1, 2\}\}$
- 12            $\{\{2\}, \{2, 3\}, \{1, 2, 3\}\}$
- 13            $\{\{3\}, \{1\}, \{1, 2\}\}$
- 14            $\{\{3\}, \{1\}, \{1, 2, 3\}\}$
- 15            $\{\{3\}, \{1, 3\}, \{1, 2\}\}$
- 16            $\{\{3\}, \{1, 3\}, \{1, 2, 3\}\}$
- 17            $\{\{2\}, \{1\}, \{1, 3\}\}$
- 18            $\{\{2, 3\}, \{1\}, \{1, 3\}\}$
- 19            $\{\{2\}, \{1\}, \{1, 2, 3\}\}$
- 20            $\{\{2\}, \{1, 3\}, \{1, 2\}\}$
- 21            $\{\{2, 3\}, \{1\}, \{1, 2\}\}$
- 22            $\{\{2, 3\}, \{1, 3\}, \{1, 2\}\}$
- 23            $\{\{2, 3\}, \{1, 3\}, \{1, 2, 3\}\}$
- 24            $\{\{2\}, \{1, 2\}, \{1, 2, 3\}\}$
- 25            $\{\{2, 3\}, \{1, 2\}, \{1, 2, 3\}\}$
- 26            $\{\{1\}, \{1, 3\}, \{1, 2\}\}$
- 27            $\{\{1\}, \{1, 3\}, \{1, 2, 3\}\}$
- 28            $\{\{1\}, \{1, 2\}, \{1, 2, 3\}\}$
- 29            $\{\{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$

35 4-element T<sub>0</sub>-covers:

- 1             $\{\{3\}, \{2\}, \{2, 3\}, \{1\}\}$
- 2             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 3\}\}$
- 3             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 2\}\}$
- 4             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 2, 3\}\}$

5             $\{\{3\}, \{2\}, \{1\}, \{1, 3\}\}$   
6             $\{\{3\}, \{2, 3\}, \{1\}, \{1, 3\}\}$   
7             $\{\{3\}, \{2\}, \{1\}, \{1, 2\}\}$   
8             $\{\{3\}, \{2\}, \{1\}, \{1, 2, 3\}\}$   
9             $\{\{3\}, \{2\}, \{1, 3\}, \{1, 2\}\}$   
10            $\{\{3\}, \{2\}, \{1, 3\}, \{1, 2, 3\}\}$   
11            $\{\{3\}, \{2, 3\}, \{1\}, \{1, 2\}\}$   
12            $\{\{3\}, \{2, 3\}, \{1\}, \{1, 2, 3\}\}$   
13            $\{\{3\}, \{2, 3\}, \{1, 3\}, \{1, 2\}\}$   
14            $\{\{3\}, \{2, 3\}, \{1, 3\}, \{1, 2, 3\}\}$   
15            $\{\{3\}, \{2\}, \{1, 2\}, \{1, 2, 3\}\}$   
16            $\{\{3\}, \{2, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
17            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 3\}\}$   
18            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 2\}\}$   
19            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 2, 3\}\}$   
20            $\{\{2\}, \{2, 3\}, \{1, 3\}, \{1, 2\}\}$   
21            $\{\{2\}, \{2, 3\}, \{1, 3\}, \{1, 2, 3\}\}$   
22            $\{\{2\}, \{2, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
23            $\{\{3\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
24            $\{\{3\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
25            $\{\{3\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
26            $\{\{3\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
27            $\{\{2\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
28            $\{\{2\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
29            $\{\{2, 3\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
30            $\{\{2, 3\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
31            $\{\{2\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
32            $\{\{2\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
33            $\{\{2, 3\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
34            $\{\{2, 3\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
35            $\{\{1\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$

21 5-element T<sub>0</sub>-covers:

1             $\{\{3\}, \{2\}, \{2, 3\}, \{1\}, \{1, 3\}\}$   
2             $\{\{3\}, \{2\}, \{2, 3\}, \{1\}, \{1, 2\}\}$   
3             $\{\{3\}, \{2\}, \{2, 3\}, \{1\}, \{1, 2, 3\}\}$   
4             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 3\}, \{1, 2\}\}$   
5             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 3\}, \{1, 2, 3\}\}$   
6             $\{\{3\}, \{2\}, \{2, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
7             $\{\{3\}, \{2\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
8             $\{\{3\}, \{2\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
9             $\{\{3\}, \{2, 3\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
10            $\{\{3\}, \{2, 3\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
11            $\{\{3\}, \{2\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
12            $\{\{3\}, \{2\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
13            $\{\{3\}, \{2, 3\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
14            $\{\{3\}, \{2, 3\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
15            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 3\}, \{1, 2\}\}$   
16            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 3\}, \{1, 2, 3\}\}$   
17            $\{\{2\}, \{2, 3\}, \{1\}, \{1, 2\}, \{1, 2, 3\}\}$   
18            $\{\{2\}, \{2, 3\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
19            $\{\{3\}, \{1\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
20            $\{\{2\}, \{1\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$   
21            $\{\{2, 3\}, \{1\}, \{1, 3\}, \{1, 2\}, \{1, 2, 3\}\}$

7 6-element T\_0-covers:

1             $\{\{3\}, \{2\}, \{2,3\}, \{1\}, \{1,3\}, \{1,2\}\}$   
2             $\{\{3\}, \{2\}, \{2,3\}, \{1\}, \{1,3\}, \{1,2,3\}\}$   
3             $\{\{3\}, \{2\}, \{2,3\}, \{1\}, \{1,2\}, \{1,2,3\}\}$   
4             $\{\{3\}, \{2\}, \{2,3\}, \{1,3\}, \{1,2\}, \{1,2,3\}\}$   
5             $\{\{3\}, \{2\}, \{1\}, \{1,3\}, \{1,2\}, \{1,2,3\}\}$   
6             $\{\{3\}, \{2,3\}, \{1\}, \{1,3\}, \{1,2\}, \{1,2,3\}\}$   
7             $\{\{2\}, \{2,3\}, \{1\}, \{1,3\}, \{1,2\}, \{1,2,3\}\}$

1 7-element T\_0-cover:

1             $\{\{3\}, \{2\}, \{2,3\}, \{1\}, \{1,3\}, \{1,2\}, \{1,2,3\}\}$