

## Exercise 4.4

- For  $n = 2$  and  $1 \leq T \leq 30$ , perform a step-by-step simulation of the algorithm in Figure 4.7. Create a table that shows, for each point in time at which  $T = 2 * k$  tokens have been processed ( $1 \leq k \leq 15$ ), which of the four indexes  $I0, \dots, I3$  are in use.

	I0	I1	I2	I3
2 tokens	1	?	?	?
4 tokens				
6 tokens				
...				

## Exercise 4.11

- Apply MapReduce to the problem of counting how often each term occurs in a set of files.
- Specify map and reduce operations for this task. Write down an example along the lines of Figure 4.6.
- Use the same example of files' collection as in 4.6:
  - $d2$  : C died.
  - $d1$  : C came, C c' ed.