The Dining Philosophers Problem

```
1   #define N 5                    /* number of philosophers */
2
3   void philosopher(int i)       /* i: philosopher number, from 0 to 4 */
4   {
5     while (TRUE) {
6       think();                   /* philosopher is thinking */
7       take_fork(i);              /* take left fork */
8       take_fork((i+1) % N);      /* take right fork; % is modulo operator */
9       eat();                     /* yum-yum, spaghetti */
10      put_fork(i);               /* put left fork back on the table */
11      put_fork((i+1) % N);       /* put right fork back on the table */
12    }
13  }
```