Algorithm:

```
philosopher int P[5] ;
While ( TRUE )
{ ……!?!?!.....; /*Thinking*/
P ( fork [j] ) ; /*Pick up left fork*/
P ( fork [i+1] mod 5 ) ; /*Pick up right fork */
eat ( ) ;
 V ( fork [i] ) ;
 }
 }
 Philosopher 4 ( ) {
 While ( TRUE ) {
 ……/*Thinking*/
P ( fork [0] ) ; /*Pick up right fork*/
 P ( fork [4] ) ; /*Pick up left fork*/
eat( ) ;
V ( fork [4] ) ;
 V ( fork [0] ) ;
}
 }
 Semaphore fork [5] = {1, 1, 1, 1, 1};
 fork (philosopher), 1, 0) ;
 fork (philosopher), 1, 1) ;
 fork (philosopher), 1, 2) ;
 fork (philosopher), 1, 3) ;
 fork (philosopher), 4, 0) ;
```