```
program   sleepingbarber;
var       n: integer;
          s: (* binary *) semaphore;
          delay: (* binary *) semaphore;
procedure producer;
begin
  repeat
    produce;
    wait(s);
    append;
    n := n+1;
    if n=0 then signal(delay);
    signal(s)
  forever
end;
procedure consumer;
begin
  repeat
    wait(s);
    n := n-1;
    if n=-1 then
      begin
        signal(s);
        wait(delay);
        wait(s)
      end;
    take;
    signal(s);
    consume
  forever
end;
begin (* main program *)
  n := 0;
  s := 1;
  delay := 0;
  cobegin
    producer; consumer
  coend
end.
```