

Problem of the Sleeping Barbers

The picture below depicts a typical scene of the *Problem of the Sleeping Barbers*, described in a simplified version in A. S. Tanenbaum, “*Modern Operating Systems*”, 2nd Ed., Prentice-Hall, 2001.



The barber shop has M barbers, M cutting chairs and K waiting chairs where the customers sit while waiting their turn. N customers are assumed.

When there are no customers, the barbers who are always overworked, sit at the cutting chairs and fall asleep. They are waken up by the arrival of a customer and, after inviting him to sit, start cutting his hair. Later arrived customers, upon checking that all barbers are working, sit at one of the waiting chairs if one is available, or exit and come back later, otherwise.

The objective is to simulate the life cycle of the barbers and the customers.