

### Performance indices of the Intranet of a school

The intranet of a school, with  $N = 530$  students, is composed by three servers: the Moodle server, the file server, and the DB server. Their average service times are respectively:  $S_m = 80ms$ ,  $S_f = 120ms$  and  $S_d = 11ms$ . The three stations are also characterized by the following visits:  $v_m = 1$ ,  $v_f = 0.75$  and  $v_d = 10$ . Knowing that the think time of the students is  $Z = 2 \text{ min}$ ,

Compute:

1. The demand of the three station
2. The system throughput
3. The utilization of the three stations
4. The system response time
5. The average number of students “not thinking”