Central State University administers computer competency examinations every year. These exams allow students to “test out” of the introductory computer class held at the university. Results of the exams can be placed in one of the following four states:

State 1: pass all the computer exams

State 2: do not pass all of the computer exams on the third attempt & be required to take the course

State 3: fail the computer exams on the first attempt

State 4: fail the computer exams on the second attempt

The course coordinator for the exams has noticed the following matrix of transition probabilities:

1 0 0 1

0 1 0 0

0.8 0 0.1 0.1

0.2 0.2 0.4 0.2

Currently, there are 200 students who did not pass all of the exams on the first attempt. In addition, there are 50 students who did not pass on the second attempt. In the long run, how many students will be exempted from the course by passing the exams? How many of the 250 students will be required to take the computer course?