

Attendance Quiz for Lecture 9 of Dr. Z.'s Dynamical Models in Biology class

Name: (print!)

Email: (print!)

1.: A gambler hits a **fair** casino, where the maximum gain is 100 dollars, with 30 dollars, and must leave as soon as he either made 100 dollars or got broke.

(i) How likely is he to exit with 100 dollars?

(ii) How many rounds should he expect to play before he has to leave the casino?

2. Solve the boundary-value linear-recurrence equation problem

$$a(n+2) = a(n+1) - \frac{3}{16} a(n) \quad ,$$

valid in $0 \leq n \leq L-2$, subject to the boundary conditions:

$$a(0) = 0 \quad , \quad a(L) = 1 \quad .$$