

## 8. Exercise: What kind of people are they

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1/1 point (graded)

As in an earlier exercise, busy people arrive at the park according to a Poisson process with rate  $\lambda_1 = 3$ /hour. Relaxed people arrive at the park according to an independent Poisson process with rate  $\lambda_2 = 2$ /hour. Assume that no other people arrive at the park.

During the last 10 minutes, exactly two people arrived at the park. What is the probability that they are both relaxed?

✓ Answer: 0.16

#### Solution:

As discussed in the preceding video, each arrival has probability  $2/(3 + 2) = 2/5$  of being a relaxed person. Furthermore, the types (busy or relaxed) of the different arrivals are independent. Therefore, the probability that both arrivals are relaxed is  $(2/5)^2 = 4/25$ .

提交

你已经尝试了3次 ( 总共可以尝试3次 )

❗ Answers are displayed within the problem

## 讨论

显示讨论

主题 : Unit 9 / Lec. 23 / 8. Exercise: What kind of people are they