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02405 Probability
2003-11-19
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Question a) We recall the definition of conditional probability

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Question a) We recall the definition of conditional probability $P(A \mid B)$

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a multinomial distribution (page 155)

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a multinomial distribution (page 155) with probabilities $p_{i}=\frac{\lambda_{i}}{\lambda}$.

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a multinomial distribution (page 155) with probabilities $p_{i}=\frac{\lambda_{i}}{\lambda}$.
Question b) Using

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P\left(N_{1}=n_{1}, N_{2}=n_{2}, \ldots N_{m}=n_{m}\right)=P(N=n)
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a multinomial distribution (page 155) with probabilities $p_{i}=\frac{\lambda_{i}}{\lambda}$.
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we see that the $N_{i}$ 's are independent Poisson variables.

