

#### MITx: 6.041x Introduction to Probability - The Science of Uncertainty



- Unit 0: Overview
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- **▼** Unit 1: **Probability** models and axioms

## Lec. 1: Probability models and axioms

Exercises 1 due Feb 10, 2016 at 23:59 UT 🗗

Mathematical background: Sets; sequences, limits, and series: (un)countable sets.

### Solved problems

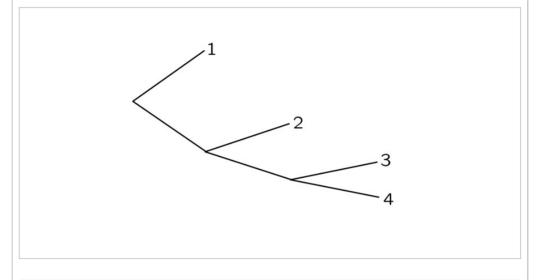
#### **Problem Set 1**

Problem Set 1 due Feb 10, 2016 at 23:59 UT 🗗 Unit 1: Probability models and axioms > Lec. 1: Probability models and axioms > Lec 1 Probability models and axioms vertical1

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### EXERCISE: TREE REPRESENTATIONS (1/1 point)

Paul checks the weather forecast. If the forecast is good, Paul will go out for a walk. If the forecast is bad, then Paul will either stay home or go out. If he goes out, he might either remember or forget his umbrella. In the tree diagram below, identify the leaf that corresponds to the event that the forecast is bad and Paul stays home.



1				







### Answer:

Under a bad forecast, there are mulliple scenarios, so a bad forecast must correspond to starting along the lower branch. Furthermore, if Paul goes out, there are two further possibilities, and these must correspond to leaves 3 and 4. Therefore, the event of staying home must correspond to leaf 2.

# You have used 1 of 2 submissions

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