Lesson 1: Probability; Discrete Random Variables

Preparation

Solutions

Please note that the steps show rounded numbers, but that the final answers to the problems are calculated without rounding.

Problem	Part	Solution
1	-	P(x)
2	-	1. A probability is a number between 0 and 1. 2. If you list all the outcomes of a probability experiment the probability that one of these outcomes 3. The probability that an outcome will not occur is 1 minus the probability that it will occur.
3	-	When something is random, it follows a long term pattern, but we usually do not know the outcome of the next experiment.
4	-	A discrete random variable is something that varies following a specific pattern or distribution over the long run. They are discrete if they can be listed.
5	-	P(Roll Greater Than 5) = 3/8 or 0.375
6	-	P(Not a Roll Greater Than 5) = 5/8 or 0.625