

Homework #1

Due on February 11th, 2020
Knowledge Discovery & Data Mining
CS513A—Spring 2020
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Problem 1

Jerry and Susan have a joint bank account. Jerry goes to the bank 20% of the days. Susan goes there 30% of the days. Together they are at the bank 8% of the days.

- Susan was at the bank last Monday. What is the probability that Jerry was there too?
- Last Friday, Susan was not at the bank. What's the probability that Jerry was there?
- Last Wednesday at least one of them was at the bank. What is the probability that both of them were there?

Solution

Problem 2

Harold and Sharon are studying for a test. Harold's chances of getting a "B" are 80%. Sharon's chances of getting a "B" are 90%. The probability of at least one of them getting a "B" is 91%.

- What is the probability that only Harold gets a "B"?
- What is the probability that only Sharon gets a "B"?
- What is the probability that both won't get a "B"?

Problem 3

Jerry and Susan have a joint bank account. Jerry goes to the bank 20% of the days. Susan goes there 30% of the days. Together they are at the bank 8% of the days. Are the events "Jerry is at the bank" and "Susan is at the bank" independent?