Bayesian Networks Part 1

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2. grass_wet = sprinkler_prior*grass_wet_sprinkler + (1-sprinkler)*grass_wet_no_sprinkler = 0.7*0.95 + 0.3*0.4 = 0.7850

3. 1 - grass_wet_sprinkler = 1 - 0.95 = 0.05
The code returned the same answer.

4. Done.

5.
a. 0.9180
b. 0.2702
c. 0.7
d. 0.7
e. Yes. Without observing the grass wet node, rain and sprinkler are independent.

6. Our project idea involves (among other things), attempting to use review text to predict a beer's style. We can define a Bayes net with "style" pointing to "review text" (perhaps multiple features representing word frequencies, etc.), and make queries like P(style = "Lager" | text).