

# CS101: Artificial Intelligence

## Programming Assignment 3: Bayesian Networks

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**Problem 1.** (Adapted from R&N 14.6, p. 559)

You may work this out in teams of two.

**Problem 2.** Variable Elimination

Implement the variable elimination algorithm from Figure 14.11, and run it for the following two queries:

- a.  $P(\text{Burglary} \mid \text{JohnCalls} = \text{true}, \text{MaryCalls} = \text{true})$
- b.  $P(\text{Earthquake} \mid \text{JohnCalls} = \text{true})$