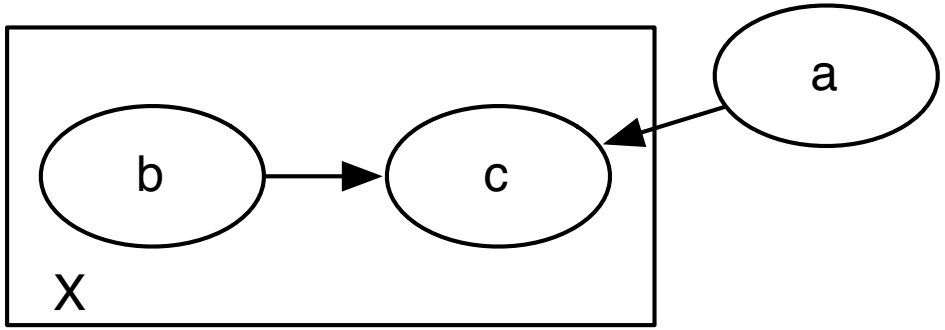
# Question #1

For the relational probabilistic model:

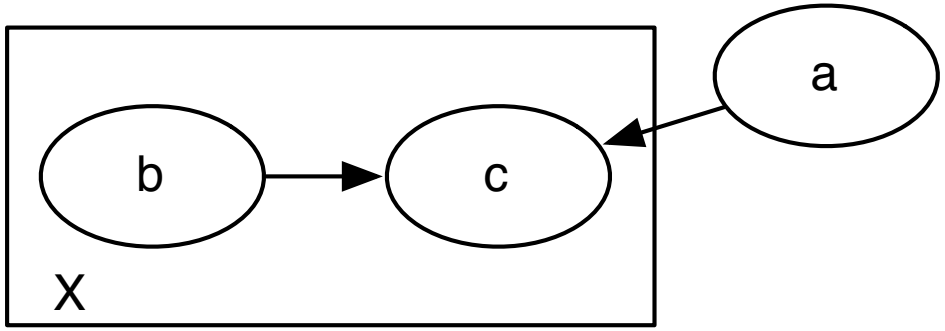



If the population of $X$ is $n$, how many random variables are in the grounding:

(A) $n + 1$
(B) $2n + 1$
(C) $n + 2$
(D) 3
(E) $3n$

# Question #2

For the relational probabilistic model:

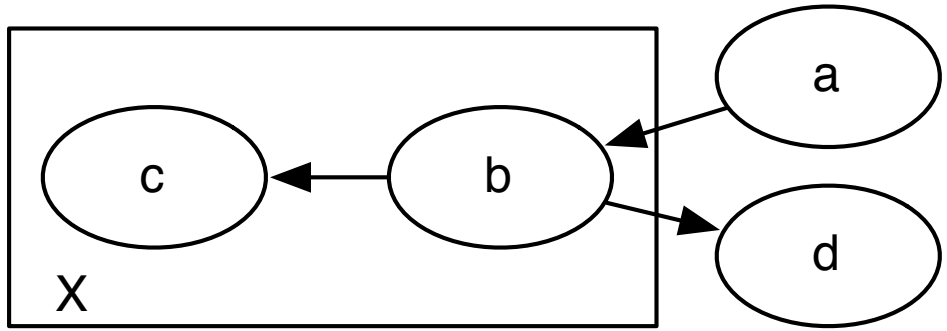



how many numbers need to be specified for a tabular representation of the conditional probabilities, if the population of $X$ is $n$, and all variables are Boolean:

(A) 3
(B) 5
(C) 6
(D) $3n$
(E) $2n + 1$

# Question #3

For the relational probabilistic model:




which of the following conditional probabilities cannot be defined as a table and requires an aggregator:

(A) $P(a)$

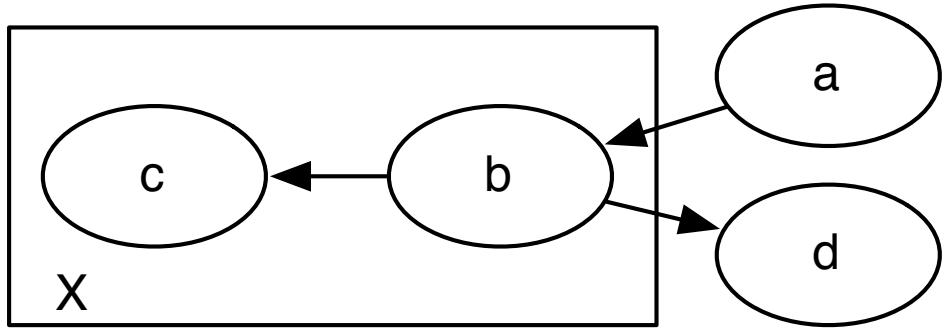
(B) $P(b(X)|a)$

(C) $P(c(X)|b(X))$

(D) $P(d|b(X))$

# Question #4

For the relational probabilistic model:

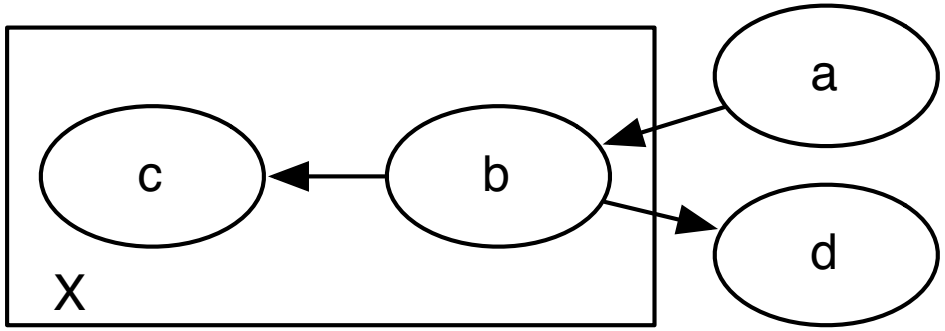



If the population of $X$ is $n$, how many random variables are in the grounding:

(A) $n + 2$
(B) $2n + 2$
(C) $n^2 + 2$
(D) 4
(E) $4n$

# Question #5

For the relational probabilistic model:

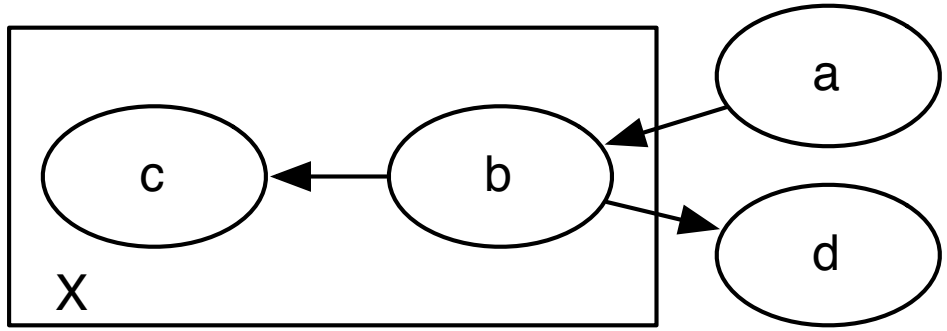



how many numbers need to be specified for a tabular presentation of the conditional probabilities if the population of $X$ is $n$, all variables are Boolean:

(A) 4
(B) 5
(C) 6
(D) $2n + 2$
(E) A tabular representation is not possible.

# Question #6

For the relational probabilistic model:

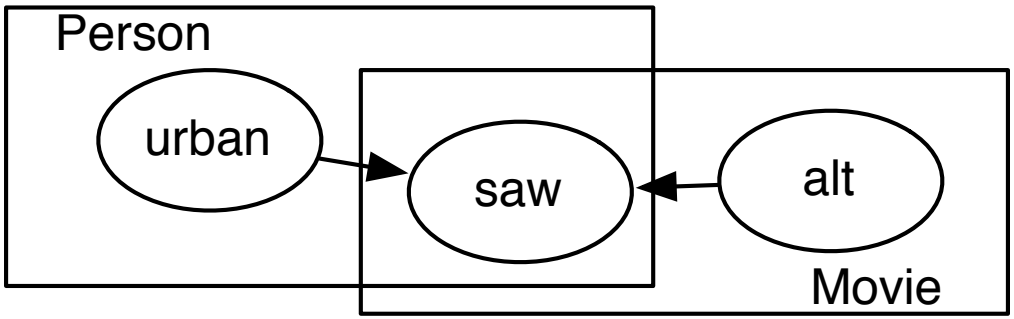



how many numbers need to be specified if the population of $X$ is $n$, all variables are Boolean, the aggregator is a noisy-or (which requires 1 parameter) and the other conditional probabilities are specified as tables:

(A) 4
(B) 5
(C) 6
(D) $4n$
(E) $2n + 2$

# Question #7

For the relational probabilistic model:




If the population of *Person* is $n$ and the population of *Movie* is $m$, how many random variables are in the grounding:

(A) $n + m$

(B) $2n + 2m$

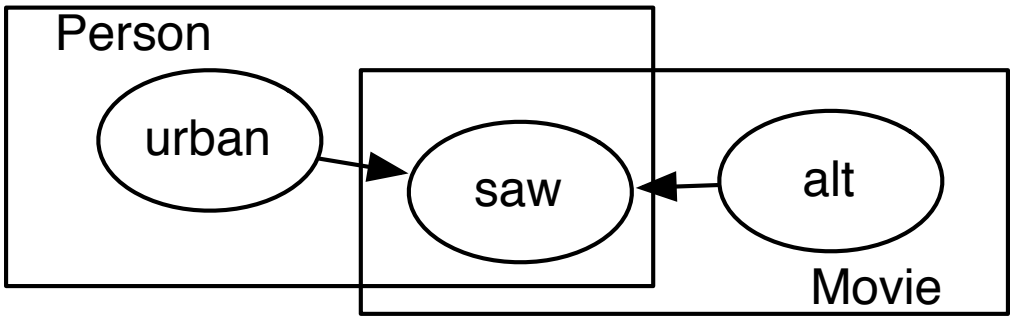
(C) $n + m + nm$

(D) 3

(E) $3nm$

# Question #8

For the relational probabilistic model:

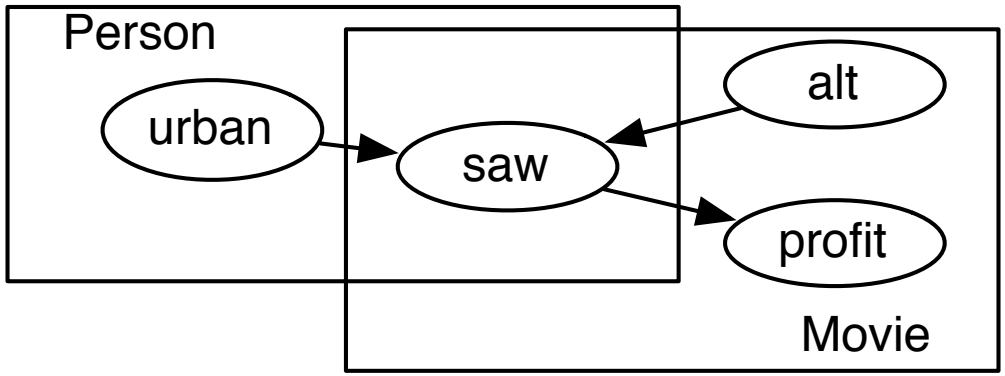



If the population of *Person* is $n$, the population of *Movie* is $m$, and all variables are Boolean, how many numbers need to be specified for a tabular representation of the conditional probabilities:

(A) 3
(B) 4
(C) 6
(D) $n + m + 4nm$
(E) a tabular representation is not possible

# Question #9

For the relational probabilistic model:




If the population of *Person* is $n$ and the population of *Movie* is $m$, how many random variables are in the grounding:

(A) $2n + 3m$

(B) $n + 2m + nm$

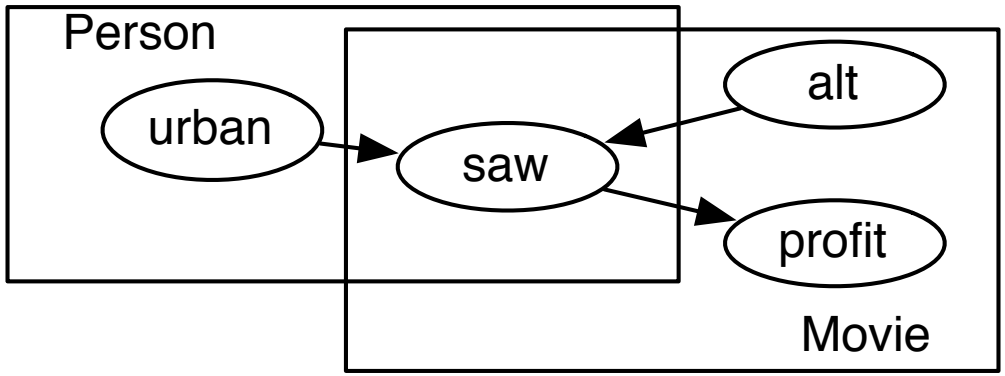
(C) 4

(D) $4nm$

(E) none of the above.

# Question #10

For the relational probabilistic model:




If the population of *Person* is $n$, the population of *Movie* is $m$, and all variables are Boolean, how many numbers need to be specified for a tabular representation of the conditional probabilities:

(A) 6

(B) 8

(C) $n + 2m + 4nm$

(D) a tabular representation is not possible

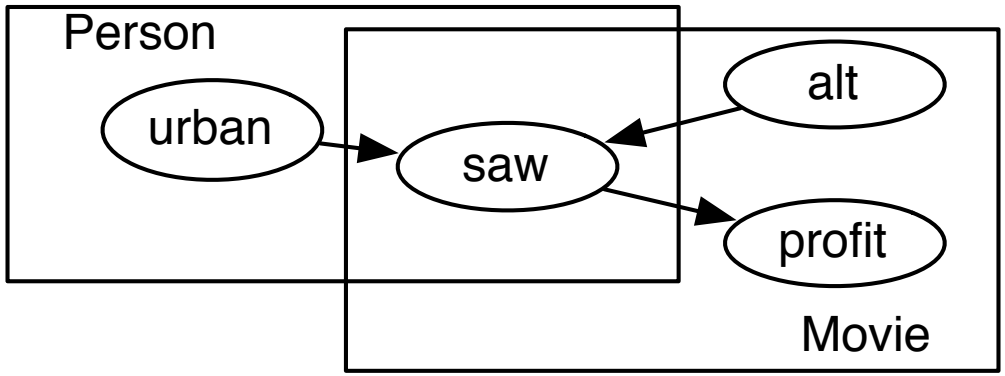
(E) none of the above

# Teaching Evaluations

- Teaching Evaluations are online.
  You should have received a message about them.
- Your feedback is important!
  —Allows us to assess and improve the course material.
  —I use it to assess and improve my teaching methods.
  —The department uses it to shape the curriculum.
  —Teaching evaluation results are important for instructors appointment, reappointment, tenure, promotion, merit, salary.
  —UBC takes them very seriously (now).
  —We can't interpret missing data.
- Evaluations close at 11:59PM on April 9, 2013.
  —Instructors can't see results until after we submit grades.
  Please do it!
  Take a few minutes, visit
  `https://eval.olt.ubc.ca/science`

# Question #11

For the relational probabilistic model:




Which of the following would not be a clause in an Independent Choice Logic representation:

(A) $profit(M) \leftarrow saw(P, M) \& n_9(P, M)$.

(B) $saw(P, M) \leftarrow urban(M) \& \sim alt(M) \& n_7(P, M)$.

(C) $saw(P, M) \leftarrow urban(M) \& \sim alt(M) \& profit(M) \& n_6(P, M)$.

(D) $saw(P, M) \leftarrow alt(M) \& n_{12}(P, M)$.

(E) all of the above are possible.