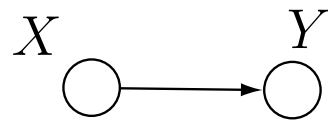


DAG notation and terminology:

○ “node” ↓ “arrow”



X is a parent of Y

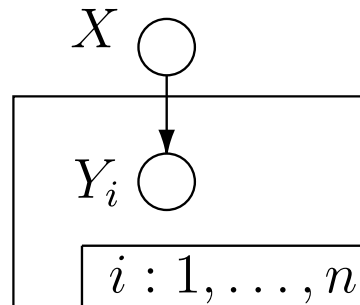
Y is a daughter of X

○ X is an unobserved variable

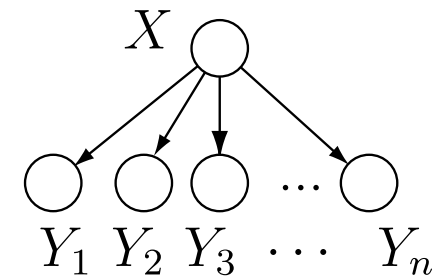
● X is an observed variable

◐ X is a variable with an assumed value (for a prior)

n -plates:



a shorthand for:



There are n variables Y_i , each conditionally independent given X .

Factorization:

$$P(\text{all}) = \prod_{\text{all nodes } i} P(\text{node } i | \text{parents of node } i)$$