

function ELIMINATION-ASK(X, \mathbf{e}, bn) **returns** a distribution over X

inputs: X , the query variable

\mathbf{e} , observed values for variables \mathbf{E}

bn , a Bayesian network specifying joint distribution $\mathbf{P}(X_1, \dots, X_n)$

$factors \leftarrow []$

for each var **in** ORDER($bn.VARS$) **do**

$factors \leftarrow [\text{MAKE-FACTOR}(var, \mathbf{e}) | factors]$

if var is a hidden variable **then** $factors \leftarrow \text{SUM-OUT}(var, factors)$

return NORMALIZE(POINTWISE-PRODUCT($factors$))