

# **PRAI Assignment - 2**

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## 1.1 Results

For variable elimination queries, the probabilities are reported as follows,

$P(J)$   
0.0521  
0.9478

$P(A)$   
0.0025  
0.9974

$P(J, M)$   
0.00208 0.05005 0.00965 0.93821

$P(B/J)$   
0.01628 0.00016 0.98371 0.99984

$P(E/A)$   
0.23101  
0.00142  
0.76899  
0.99857

For chain graph queries, the probabilities are reported as follows,

$P(A)$   
0.1  
0.9

$P(B)$   
0.82  
0.18

$P(C)$   
0.364  
0.636

$P(D)$   
  
0.618  
0.382

$P(A, B)$   
0.01  
0.09  
0.81  
0.09

P(C, D)  
0.1092  
0.2548  
0.5088  
0.1272

P(A, D)  
0.069  
0.031  
0.549  
0.351

P(A/D)  
0.1116  
0.0811  
0.8883  
0.9188