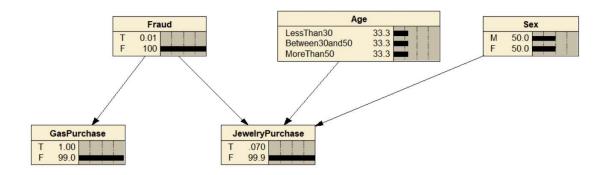
## **Additional Requirements (6 points)**

- 1. The name of your source code file should be mp4.pdf
- 2. Your answers, including the Bayesian Network image need to be clearly legible and well organized.
- 3. Make sure the Bayesian Network itself is organized from causes (on top) to effects (on bottom).
- 4. At the top of the document, write the following information: your name, date, course name, semester, and assignment name.

## A) (3 points)



## **B)** (3 points)

MAX: {GAS=YES; JEWELRY=YES; AGE=Under30; SEX=Male} -> 50% MIN: {GAS=NO; JEWELRY=NO} -> 0.008 %

## C) (3 points)

 $P(Fraud \mid gasPurchase, jewelryPurchase) = < 12.5, 87.5 > \%$ 

 $P(Fraud | gasPurchase, \neg jewelryPurchase) = < 0.19,99.8 > \%$ 

 $P(Fraud \mid \neg gasPurchase, jewelryPurchase) = < 0.57,99.4 > \%$ 

 $P(Fraud \mid \neg gasPurchase, \neg jewelryPurchase) = < 0.008, 0.992 > \%$