

1) .

- a. $P(M|T<80) = [P(T<80|M) * P(M)]/P(T<80) =$
 $[P(T<80|M)*P(M)]/[P(M)P(T<80|M)+P(S)P(T<80|S)] = 0.2963$
- b. $P(T) = P(M|T<80) + P(S|T<80) = 0.30741$
- c. $P(T<80) = P(M)*P(T<80|M) + P(S)*P(T<80|S) = 0.135$
 $0.135^3 = 0.00246$

2) $1 - P(A) - P(B) = 0.1$

Therefore P is possibly a probability function

3) $P(x) = 0.3 \quad 0 \leq x \leq 10$

the integral of $P(x) = 0.3x$ from 0 to 10 which equals 3.0, therefore this is definitely not a valid probability density function

4)

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ID= 484, predicted= 1, probability= 0.4400, true= 1, accuracy= 1.00
classification accuracy=0.4483
PS C:\Users\micha>
```