homework4

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#1. all homework has been committed in github

#2a. writing first equation using latex. $P(B) = \sum_j P(B \mid A_j)P(Aj), \Rightarrow P(A_i \mid B) = \frac{P(B|A_i)P(A_i)}{\sum_j P(B|A_j)P(A_j)}$

#2b. writing second equation using latex. $\hat{f}(\zeta) = \int_{-\infty}^{\infty} f(x)e^{-2\pi i x \zeta}dx$

#2c. writing third equation using latex.

$$J = \frac{df}{dx} = \begin{bmatrix} \frac{\partial f}{\partial x_1} & \cdots & \frac{\partial f}{\partial x_n} \end{bmatrix} = \begin{bmatrix} \frac{\partial f_1}{\partial x_1} & \cdots & \frac{\partial f_1}{\partial x_n} \\ \vdots & \ddots & \vdots \\ \frac{\partial f_m}{\partial x_1} & \cdots & \frac{\partial f_m}{\partial x_n} \end{bmatrix}$$

2a: you want to preserve the line structure from the prompt. The P(Aj) needs to have the j in a subscript

2b: the equation should be on a new line with either double dollar signs or begin equation so that the integral will be larger as seen in the prompt

2c: Overall good. The first fraction needs \partial rather than the d's. Also need to bold where necessary