



4.6 Gaussian Discriminant Analysis -

<u>Course</u> > <u>Ch4 Classification</u> > <u>One Variable</u>

4.6 Review Questions

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4.6.R1

1/1 point (graded)

Which of the following is NOT a linear function in x:

$$\bigcap f(x) = a + b^2 x$$

The discriminant function from LDA

$$igcirc \delta_k\left(x
ight) = xrac{\mu_k}{\sigma^2} - rac{\mu_k^2}{2\sigma^2} + \log\left(\pi_k
ight)$$

 $\bigcap \operatorname{logit}\left(P\left(y=1|x
ight)
ight)$ where $P\left(y=1|x
ight)$ is as in logistic regression





Explanation

 $P\left(y=1|x\right)$ from logistic regression is not linear because it involves both an exponential function of x and a ratio. Notice that $f\left(x\right)=a+b^2x$ is not a linear function of b, but is a linear function of x.

Submit

1 Answers are displayed within the problem