

Quiz 1

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1a

2 relevant features could be:

- A binary feature indicating whether the observation is made of living/organic compounds or non-organic compounds
- A binary feature indicating if an observation is programmable by computer vs. non-programmable

1b

The labels are:

- non-robot (0)
- robot (1)

2

(a) and **(e)**

3a

c2 because $p(x|C_2) > p(x|C_1)$ ($\sim 0.32 > \sim 0.12$) and priors are equal.

3b

c1 because $p(x|C_1) * 0.9 > p(x|C_2) * 0.1$ ($= 0.12 \times 0.9 > 0.32 \times 0.1 = 0.108 > 0.032$)