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Ques

Training Cat Document

- just plain boring
- entirely predictable and lack energy
- no surprises and very few laughs
- very powerful
- the most fun film of the summer

Indictables with no priors:-

Ques

Priors:

$$P(-) = \frac{3}{5} \quad \& \quad P(+) = \frac{2}{5}$$

conditional probabilities:

$$P(\text{predictable} | -) = \frac{1+1}{14+20} = \frac{2}{34} = \frac{1}{17}$$

$$P(\text{with} | -) = \frac{0+1}{14+20} = \frac{1}{34}$$

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$$P(\text{no} | -) = \frac{1+1}{14+20} = \frac{2}{34} = \frac{1}{17}$$

$$P(\text{fun} | -) = \frac{0+1}{14+24} = \frac{1}{34}$$

$$P(\text{predictable} | +) = \frac{0+1}{9+24} = \frac{1}{33}$$

$$P(\text{with} | +) = \frac{0+1}{9+24} = \frac{1}{33}$$

$$P(\text{no} | +) = \frac{0+1}{9+24} = \frac{1}{33}$$

$$P(\text{fun} | +) = \frac{1+1}{9+24} = \frac{2}{33}$$

choosing the category:

$$P(+ | \text{test}) = P(\text{predictable} | +) \times P(\text{with} | +) \\ \times P(\text{no} | +) \times P(\text{fun} | +) \\ \times \left(\frac{1}{5}\right)$$

$$= \frac{1}{33} \times \frac{1}{33} \times \frac{1}{33} \times \frac{2}{33} \times \frac{2}{5}$$

$$= 6.7458119e^{-7} \approx 0.0000007$$



$$P(- | \text{test}) = \frac{1}{17} \times \frac{1}{34} \times \frac{1}{17} \times \frac{1}{34} \times \frac{3}{5} =$$

$$= 1.79595551e^{-6}$$

$$\approx 0.000002$$

\therefore category of test will be test -. (any)