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Quiz name

Weekly quiz 9 (DUE: Fri Sep 22)

1 | TRUE/FALSE

Edit

Bayesian methods are a set of mathematical rules for using new data to continuously update beliefs or existing knowledge.

Answer

True



2

MULTIPLE CHOICE

Edit

Bayesian statistics has grown vastly more useful because of the kind of advanced _____ power that did not exist even 20 years ago

Answer choices

A mathematical

B prior

C information

D computing

3

MULTIPLE CHOICE

Edit

In what century did both frequentist and Bayesian methods arise?

Answer choices

A 16th

B 17th

C 18th

D 19th

4 | MULTIPLE CHOICE

Edit

Arbuthnot gathered christening records from 1629 to 1710 and found that in London, a few more boys were recorded every year (82 times). What would be the probability of this happening, if the gender birth ratio was truly 50:50?

Answer choices

A	0.5^{82}
B	$82^{0.5}$
C	$\frac{82}{0.5}$
D	Not possible

5 | MULTIPLE CHOICE

Edit

One downside of Bayesian statistics is that it requires _____ information, and often scientists need to start with a guess or estimate

Answer choices

A	posterior
B	prior
C	special
D	no

6 | **MULTIPLE CHOICE**

Edit

The Coast Guard has been using Bayesian analysis since the _____. The approach lends itself well to problems like searches, which involve a single incident and many different kinds of relevant data.

Answer choices

A	1960s
B	1970s
C	1980s
D	1990s

7 | **TRUE/FALSE**

Edit

$p(A \text{ and } B) = p(A) p(B)$

Answer

False

8 | **TRUE/FALSE**

Edit

$p(A \text{ and } B) = p(A) p(B | A)$

Answer

True

9 | MULTIPLE CHOICE

Edit

$$\frac{p(A)p(B|A)}{p(B)}$$

The above quantity is part of Bayes theorem. What does it equal?

Answer choices

A	$p(A B)$
B	$p(A)p(B)$
C	$p(A \text{ and } B)$
D	$p(B A)$

10 | MULTIPLE CHOICE

Edit

For many problems involving conditional probability, Bayes's theorem provides a _____ strategy.

Answer choices

A	not useful
B	complicated
C	divide-and-conquer
D	visual

+ Multiple Choice

+ True/False

+ Short Answer