Sway

Lobby | Rooms | Quizzes | Reports

Edit Quiz

Save and Exit

Quiz name

Weekly quiz 3 (DUE: Aug 11 10am)

1 **MULTIPLE CHOICE** Edit

Probability distributions are fundamental to

Answer choices

A	statistics
B	computer science
C	english
D	languages

2 MULTIPLE CHOICE

Edit

There are hundreds of probability distributions, some sounding like monsters from medieval legend like the Muth or Lomax. Only about ____ distributions turn up consistently in practice though.

Answer choices

A	15
B	2
C	25
D	70

3 MULTIPLE CHOICE

Edit

Probability distributions describe what we think the probability of each _____ is

Answer choices

A	observation
B	experiment
C	unit
D	outcome

4 TRUE/FALSE

Edit

flipping a fair coin has two outcomes: it lands heads or tails. (Assume it can't land on edge or be stolen by a seagull in mid-air.) Before the flip, we believe there's a 1 in 2 chance, or 0.5 probability, of heads. After you flip the coin the probability of heads is either 0 or 1.

Answer

True

5 MULTIPLE CHOICE

Edit

Bernoulli distribution is a probability distribution over the _____ outcomes

Answer choices

A	one
B	three
C	two
D	five
E	unknown number of

6 TRUE/FALSE

Edit

The Bernoulli distribution should not be used to represent outcomes that aren't equally likely, like the result of an unfair coin toss.

Answer

False

7 MULTIPLE CHOICE

Edit

Each distribution is described by a probability density function (PDF). To display the PDF we plot outcomes on the horizontal axis, and the _____ of the outcome on the vertical axis.

Answer choices

A	proportion
B	probability
C	p-value
D	prior

8 MULTIPLE CHOICE

Edit

It's a short jump from the Bernouilli to imagine a distribution over many equally-likely outcomes, the _____ distribution characterized by a flat PDF.

Answer choices

A	normal
B	binomial
C	uniform
D	Poisson

9 MULTIPLE CHOICE

Edit

The _____ distribution may be thought of as the sum of outcomes of things that follow a Bernoulli distribution.

Answer choices

A	normal
B	binomial
C	uniform
D	Poisson

10 MULTIPLE CHOICE

Edit

What distribution would be used to model the count of customers calling a support hotline each minute?

Answer choices

A	normal
B	binomial
C	uniform
D	Poisson

11 MULTIPLE CHOICE

Edit

What distribution best matches the number of times does a flipped coin come up tails before it first comes up heads?

Answer choices

A	normal
B	exponential
C	geometric
D	negative binomial

12 MULTIPLE CHOICE

Edit

What distribution best matches how long the wait time until the next customer calls?

Answer choices

A	normal
B	exponential
C	geometric
D	negative binomial

13 MULTIPLE CHOICE

Edit

Take a bunch of values following the same distribution—any distribution—and sum them. The distribution of their sum follows (approximately) the normal distribution. This is called

Answer choices

A	the central limit theorem
B	the law of large numbers
C	occums razor
D	asymptotic optmisation

14 TRUE/FALSE

Edit

The t-distribution arose from improving quality of beer production.

Answer

True

15 TRUE/FALSE

Edit

The gamma distribution has a symmetric PDF.

Answer

False

+ Multiple Choice + True/False + Short Answer