

STATISTICS WORKSHEET- 4

1. d) All of the mentioned
2. a) Discrete
3. a) pdf
4. c) mean
5. a) variance
6. a) variance
7. c) 0 and 1
8. b) bootstrap
9. b) summarized

10. Histograms are a special kind of bar graph that shows a bar for a range of data values instead of a single value. A box plot is a data display that draws a box over a number line to show the interquartile range of the data. The 'whiskers' of a box plot show the least and greatest values in the data set.

11.

1. Good metrics are important to your company growth and objectives. Your key metrics should always be closely tied to your primary objective. ...
2. Good metrics can be improved. Good metrics measure progress, which means there needs to be room for improvement.
3. Good metrics inspire action.

12. To assess statistical significance, you would use hypothesis testing. The null hypothesis and alternate hypothesis would be stated first.

13. Exponential distributions do not have a log-normal distribution or a Gaussian distribution. In fact, any type of data that is categorical will not have these distributions as well. Example: Duration of a phone car, time until the next earthquake, etc.

14. Income is the classic example of when to use the median instead of the mean because its distribution tends to be skewed. The median indicates that half of all incomes fall below 27581, and half are above it. For these data, the mean overestimates where most household incomes fall.

15. The likelihood function represents the probability of random variable realizations conditional on particular values of the statistical parameters.