Frequently Asked Questions

1. What is a mean

Answer: Means are mathematical formulations used to characterize the central tendency of a set of numbers.

2. What is a geometric mean?

Answer: Geometric mean is the 'nth' root of the product of 'n' items of a series.

3. What is the difference between arithmetic mean and geometric mean

Answer: The "arithmetic mean", is also commonly called an average whereas the Geometric mean is the 'nth' root of the product of 'n' items of a series.

4. When would one use the geometric mean as opposed to arithmetic mean?

Answer: The arithmetic mean is relevant any time several quantities add together to produce a total.In the same way, the geometric mean is relevant any time several quantities multiply together to produce a product.

5. How is a geometric mean calculated for a data set with two numbers?

Answer: if there are two items in a series then the square root of the products of the item in the series is taken.

6. How is a geometric mean calculated for a data set with more items?

Answer: when there are more items in the series then it is excessively difficult finding the roots of the items so to simplify we use the logarithms for calculation.

7. What are the different statistical series?

Answer: Statistical series are classified into –Individual series, discrete series and continuous series.

8. How is the geometric mean calculated for a continuous frequency distribution?

Answer: The geometric mean for a continuous frequency distribution find the mid values of the classes, take the logarithms of the mid value, multiply these logarithms with the respective frequencies, obtain the total of Σ f logm, divide Σf logm by N(total of frequency), take the antilog of the value so obtained, this gives the value of the geometric mean.

9. Where do we use a compound interest formula?

Answer: The most generally useful interpretation of this term is the constant percentage rate of change which if applied each year would take us from the first to the last figure.

10. Where all do we think we can apply the geometric mean?

Answer: The geometric mean is used to find the average percent increase in sales, production, population or other economic or business series.

11. What is a combined geometric mean?

Answer: The combined geometric mean is a mean arrived combined for various series in a data set.

12. What are the advantages of using geometric mean?

Answer: The advantages of using geometric mean are averaging ratios and percentages, determining rates of increase and decrease and it is capable of algebraic manipulations.

13. What are the limitations in using a geometric mean?

Answer: The interpretation of geometric mean is difficult in comparison to arithmetic mean, Geometric mean cannot be calculated when we have both negative, positive value and values having zeros. Explain answer here

14. What logarithm base should we use in calculating geometric mean?

Answer: It doesn't matter what logarithm base you use, so long as you are consistent. If the logarithms in step 1 are common (base 10) logs, then the geometric mean in step 3 is computed by taking 10 to the power of the mean of the logarithms. If the logarithms in step 1 are natural, then step 3 is computed by taking e to that power. Explain answer here

15. In which disciplines do we use geometric mean.

Answer: Geometric mean has utility in science, finance, and statistics.