

Statistics Tutors  
can help with  
difficult assignments.

# Descriptive Statistics Formula Review

Free Quick Notes Books has your copies of  
Quick Notes Accounting, Economics, Statistics,  
and Excel Statistics Lab Manual.

## Ungrouped Measures

1. Population mean  $\mu = \frac{\sum x}{N}$

3. First quartile  $\frac{n}{4} + .5$

5. Third quartile  $\frac{3n}{4} + .5$

7. x percentiles  $\frac{xn}{100} + .5$

9. Weighted mean  $\frac{\sum (W_x X_x)}{\sum W_x}$

11. Population standard deviation  $\sigma = \sqrt{\frac{\sum x^2}{N} - \left(\frac{\sum x}{N}\right)^2}$

13. Population variance  $\sigma^2 = \frac{\sum x^2}{N} - \left(\frac{\sum x}{N}\right)^2$

15. Coefficient of variation  $C.V. = \frac{\sigma}{\mu}(100)$

17. Chebyshev's rule  $1 - \frac{1}{k^2}$

## Grouped Measures

19. Approximate class width  $\frac{\text{range}}{\# \text{ of classes}}$

21. Population mean  $\mu = \frac{\sum fx}{N}$

23. Location of the median  $\frac{n}{2}$

25. Population standard deviation  $\sigma = \sqrt{\frac{\sum f(x-\mu)^2}{N}}$

27. Relative frequency  $\frac{\text{class frequency}}{\text{total frequencies}}$

2. Sample mean  $\bar{X} = \frac{\sum x}{n}$

4. Median  $\frac{n}{2} + .5$

6. Interquartile range  $Q_3 - Q_1$

8. x deciles  $\frac{xn}{10} + .5$

10. Average deviation  $\frac{\sum |x-\mu|}{N}$

12. Sample standard deviation  $S = \sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1}}$

14. Sample variance  $S^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1}$

16. Range  $H-L$

18. Pearson's coefficient of skewness  $\frac{3(\bar{x} - \text{md.})}{S}$

Free Business Textbooks is  
an extensive business library.

20. Class midpoint  $\frac{X_1 + X_2}{2}$

22. Sample mean  $\bar{X} = \frac{\sum fx}{n}$

24. Median  $L + \frac{\frac{n}{2} - CF_b}{f}(i)$

26. Sample standard deviation  $S = \sqrt{\frac{\sum fx^2 - \frac{(\sum fx)^2}{n}}{n-1}}$

28. Sample variance  $S^2 = \frac{\sum fx^2 - \frac{(\sum fx)^2}{n}}{n-1}$

Google Business Book Mall for  
material to enhance your career.

Excel Internet Library has learning  
materials classified by type of user.