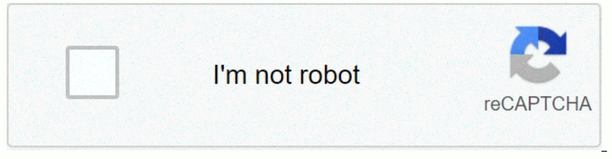

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Variance and standard deviation grouped data worksheet pdf

Average estimate from grouped data (worksheet) This worksheet explains how to evaluate the average estimate from a grouped frequency table. For example, in a survey, you may have asked participants to specify an age range instead of asking their actual age. Assessment of deviation of IBI and standard deviation from grouped data (worksheet) This worksheet explains how to measure the variance of the AIBE and the standard deviation from the grouped frequency data. For example, in a survey, you may have asked participants to specify an age range instead of asking their actual age. Note: This worksheet uses the divisor n, which thinks you have data for each population. If you only have a sample, use the n-1 divider. 5.6 Average, variance, and standard deviation of the grouped data 5.6.1 Average grouped data To calculate the average of the grouped data, first find the middle of each class, and then multiply the middle by the corresponding classes of frequencies. The sum of these products is an approximate sum of all values. To find the average value, divide this amount by the total number of observations in the data. The formulas used to calculate the average of the grouped data are as follows. Average population data: average sample data: where m is the middle point and f is the class frequency. 5.6.2 Dispersion and standard deviation of the grouped data The following basic formulas are used to calculate the ai and sample dispersion of the grouped data. where there is a variance of the population is the dispersion of the sample and m is the middle of the class. In any case, the standard deviation is obtained by taking a positive square root of the dispersion. Again, these calculation formulas are more effective in calculating variance and standard deviation. where there is a variance of the population is the dispersion of the sample and m is the middle of the class. The standard deviation is obtained by taking a positive square root of the dispersion. Population standard deviation: sample standard deviation: Example 5.6-1 The following is a distribution of the daily commute time (minutes) of all 25 employees in the enterprise. Daily commute time Number of employees from 0 to less than 10 4 10 to less than 20 9 20 to less than 30 6 30 to less than 40 4 40 to less than 50 2 Calculate the average, dispersion and standard deviation of daily commute time. Daily commute time from 0 to less than 10 4 5 20 100 10 to less than 20 9 15 135 2025 20 to less than 30 6 25 150 3750 30 to less like 340 4 35 140 4900 40 to less than 50 2 45 90 4050 N = 25 Average minute deviation standard deviation of the minute deviation Theme type description and standard deviation for ungrouped data Worksheet This worksheet explains the following worksheet , what is the deviation and deviation contains and has certain exercises that you can perform when calculating them for manually ungrouped data deviations and standard deviations for grouped data Worksheet This worksheet explains that expands the definitions included in the worksheet to use the data that has been grouped, and have some exercises that you can do to calculate them for hand-grouped data, coventrio university-created spread worksheet tools that explain how to calculate a range, interquartile range, and standard deviation with some practice exercises Interquartile range Online tutorial Khan Academy tutorial about interquartile range. Includes video explanation, practice exercises and quiz variance, standard deviation and range of population online lesson Khan Academy lesson on population range, dispersion and standard deviation. Includes video explanation, practice exercises and quiz tolerance and standard deviation of the example online tutorial Khan Academy tutorial on sample dispersion and standard deviation. Includes a video explanation, exercise and quiz More about the exemplary standard deviation online lesson of Khan's Academy lesson, which examines why the dispersion of the sample dispersion from n-1 provides an unbiased assessment of population dispersion. Includes video explanation, practice exercises and quiz range, and a mid-range online training program at Khan Academy for a lesson on range and mid-range. Includes video callout, exercise, and quiz All queries, feedback, or comments can use our contact form or email us: mash@sheffield.ac.uk Go back to data issues grouped on stat topics Find the average and standard deviation of the distribution of these quantitative frequencies. These problems have been adapted from those of the 146-148 pages of Michael Sullivan, Basics Statistics, 2nd Edition, Pearson Education, Inc. 2008. 1) An example of college students was asked how much they spent monthly on a mobile phone plan (in the nearest dollar). Monthly Cell Phone Plan Price ($) Number of students 10 - 19 8 20 - 29 16 30 - 39 21 40 - 49 11 50 - 59 4 2) These data show the difference in results between the winning and losing teams in a sample of 15 college football bowl games from 2004-2005. Points difference Number Bowl Games 1 - 5 8 6 - 10 0 11 - 15 2 16 - 20 3 21 - 25 1 26 - 30 0 31 - 35 1 3) The following table shows 80 years ago 1905-2004. the annual number of days in the sample, greater than 100 degrees Fahrenheit for Dallas-Fort Worth. Days above 100 degrees Number of years 0 - 9 25 10 - 19 33 20 - 29 14 30 - 39 5 40 - 49 2 50 - 59 1 4) The following table shows the distribution of the number of hours worked each week (average) 100 a sample of college students. Hours worked per week Number of students 0 - 9 24 10 - 19 14 20 - 29 39 30 - 39 18 40 - 49 5 5) These data indicate age age sample of 100 persons covered by health insurance (private or government). The sample was taken in 2003. Temperature days 60 - 69 3 70 - 79 15 80 - 89 17 90 - 99 5 7) These data show the annual distribution of precipitation in St. Louis, Missouri, for a sample of 25 years from 1870 to 2004. Rainfall (inches) Number of years 20 - 24 1 25 - 29 3 30 - 34 5 35 - 39 8 40 - 44 5 45 - 49 2 50 - 54 0 55 - 59 1 8) The following data shows 70 women, multiple births in 2002. Age Number 15 – 19 1 20 – 24 5 25 - 29 16 30 - 34 28 35 - 39 17 40 - 44 3 Go to stat Topics Answers Answers