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| **Comparing Measures of Central Tendency** |
| Determines the mean and mode for a data set14, 19, 23, 27, 28, 33The mean is:  (14 + 19 + 23 + 27 + 28 + 33) ÷ 6= 144 ÷ 6= 24There is no mode. | Determines the median and range for a data set14, 19, 23, 27, 28, 33The median is:  (23 + 27) ÷ 2= 50 ÷ 2= 25The range is:33 – 14 = 19 | Suggests and justifies the choice of measure to represent a data setA person spent these amounts for 4 weekly grocery bills: $174, $196, $205, $220There is no mode.In dollars, the mean is:  (174 + 196 +205 + 220) ÷ 4 = 795 ÷ 4= 198.75 In dollars, the median is: (196 + 205) ÷ 2 = 401÷ 2 = 200.50Since the mean and median are so close in value, either measure could represent the data.  | Identifies an outlier and explains its effect on the mean, median, and modeA student has these marks on English tests: 84, 72, 81, 72, 32The outlier is 32, because it is much less than the other numbers.With the outlier, the mean is: (84 + 72 + 81 + 72 + 32) ÷ 5 = 341 ÷ 5  = 68.2The median is 72.The mode is 72.Without the outlier, the mean is: (84 + 72 + 81 + 72) ÷ 4 = 309 ÷ 4  = 77.25The median is: (72 + 81) ÷ 2 = 76.5The mode is 72.The outlier affects the mean and median – it reduces both these measures. The outlier has no effect on the mode. |
| **Observations/Documentation** |
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