Exploring the World of Math

Name: _____ Date: _____

Test 5: Weighted Average

1. Captain Debra Smith is arranging for security during the football championship game in her city. She is preparing the risk assessment for her team. She rates each category from 1 to 5 with 5 being the most prepared. Contingency planning is weighted at 15%. Training of personnel is rated at 25%. Environmental conditions are weighted at 10%. Timing for the event is rated at 30% and the level of supervision is rated at 20%. Circle the area of security with the lowest score and is our area of the most concern.

Category	Securing the area prior to game	Bomb detection and disposal	Quick Reaction Team	Aviation Support and Transportation
Planned	4	3	5	3
Trained	3	3	4	4
Environment	2	2	1	3
Time to complete	5	4	3	3
Supervision	4	4	3	5
Weighted Score				

2. In Excel 2010, there are ____ types of standard deviation functions (stdev, stdevp, stdeva and stdevpa).
   a. 1 b. 2 c. 3 d. 4

3. In the set {0,1,2,3,4,5,6,7,8,9,10}, the median is
   a. 0 b. 5 c. 5.5 d. 6

4. In the set {0,1,2,3,4,5,6,7,8,9,10}, the mode is
   a. 0 b. 5 c. 7 d. none

5. In the set {0,1,2,3,4,5,6,7,8,9,10}, the range is
   a. 10 b. 5 c. 7 d. 2

6. Another word for mean is
   a. nice b. average c. median d. mode

7. Label the process for computing the standard deviation from 1 to 5

	Compute the square root of the added sums divided by the number of data points
	Find the mean of the data points
	Add up all the sums of the squared differences of data points minus the mean
	Square the difference of each data point minus the mean
	Divide the added squared differences by the number of data points

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Bell Curve and Standard Deviation

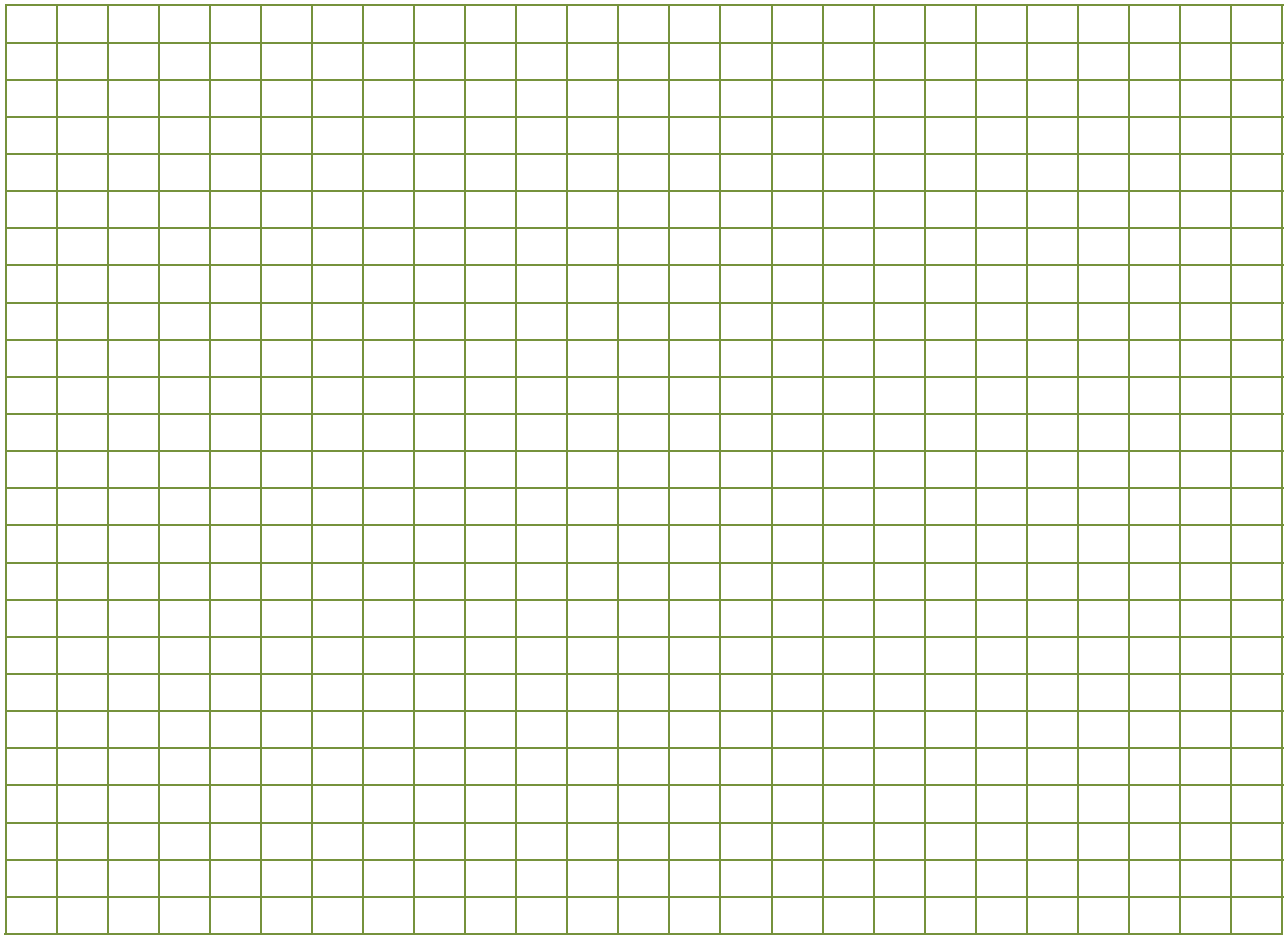
The following scores are from the band class.

75	58	61	74	84	67	68	70	78	76	88	78
93	94	72	63	83	53	56	84	67	89	70	99

1. Create a frequency table for the above data

50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99

2. Create a bar chart that reflects the data from the above frequency table.



3. What is the mean, median and mode for the above data?

4. What is the standard deviation of the data?