

## Quick Questions 6 Measuring Dispersion of Grouped Data

I. Place the number of the appropriate formula next to the item it describes.

A. Grouped sample standard deviation \_\_\_\_\_

B. First quartile \_\_\_\_\_

C. Median (second quartile) \_\_\_\_\_

D. Third quartile \_\_\_\_\_

E. Interquartile range \_\_\_\_\_

F. Percentile \_\_\_\_\_

1. $L + \frac{\frac{n}{2} - CF_b}{f}(i)$	4. $L + \frac{\frac{3n}{4} - CF_b}{f}(i)$
2. $\sqrt{\frac{\sum fx^2 - \frac{(\sum fx)^2}{n}}{n-1}}$	5. $L + \frac{\frac{xn}{100} - CF_b}{f}(i)$
3. $L + \frac{\frac{n}{4} - CF_b}{f}(i)$	6. $Q_3 - Q_1$

II. Complete the first row of this table and calculate the following measurements.

Stated Class Limits	Frequency (f)				
40 - 49	1	44.5	44.5	1,980.25	1,980.25
50 - 59	2	54.5	109.0	2,970.25	5,940.50
60 - 69	3	64.5	193.5	4,160.25	12,480.75
70 - 79	5	74.5	372.5	5,550.25	27,751.25
80 - 89	3	84.5	253.5	7,140.25	21,420.75
90 - 99	<u>2</u>	<u>94.5</u>	<u>189.0</u>	<u>8,930.25</u>	<u>17,860.50</u>
Totals	16	417.0	1,162.0	30,731.50	87,434.00

A. Range

B. Sample variance

C. Sample standard deviation