

GRADES-5 ANSWERS

For each of the following sets of grades, do the following:

- a. Find the range.
- b. Find the sample standard deviation.
- c. Find the population standard deviation.
- d. Use the frequency distribution from *grades-1*, and find the standard deviation (sample and population) of the grouped data.

1. 55, 62, 63, 66, 67, 69, 71, 71, 73, 74, 75, 78, 79, 85, 87, 88, 89, 92, 92, 99

- a. range = 44
- b. $s \approx 11.827$
- c. $\sigma \approx 11.528$
- d. $s \approx 11.367$
 $\sigma \approx 11.079$

2. 54, 56, 63, 72, 73, 75, 76, 77, 78, 81, 81, 89, 91, 92, 95, 95, 95, 96, 97, 98

- a. range = 44
- b. $s \approx 13.654$
- c. $\sigma \approx 13.308$
- d. $s \approx 13.416$
 $\sigma \approx 13.077$