

- ① Calculate the std. deviation of tardies in Mr. Cedarlund's 4 classes last Tuesday, by hand (showing work as done in class).

	#tardies
Per. 1	3
Per 2	4
Per 4	2
Per 5	11

Now complete <sup>the</sup> summary statement:

On the average, there are

- ② Now check your results using the "STAT" feature of your GDC.

$$\bar{x} =$$

$$\sigma =$$

- ③ Find the mean and std. deviation of the following # of wins for the eight baseball teams (include units)

78 95 88 85 89 92 90 82

a) mean =

b) std. deviation =

b) Summary Statement:

"On average, the eight teams won..."

4

Neesha's scores in chemistry this semester were rather inconsistent: 100, 90, 55, 95, 75, 0.

- a. Mean: \_\_\_\_\_
- b. Median: \_\_\_\_\_
- c. Range: \_\_\_\_\_
- d. Standard Deviation: \_\_\_\_\_
- e. For this population, how many scores are within one standard deviation of the mean?  
\_\_\_\_\_

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f) <sup>What</sup> If the score of "0" was eliminated?  
 Would the change have more of a dramatic affect on the mean or median?

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James and Maria are comparing their scores on ten algebra quizzes and determine that they both have the same mean score. They also discover that the standard deviation for James's scores is 17.1, while the standard deviation for Maria's scores is 4.6. Which statement about the two sets of quiz scores must be true?

- a. The median of Maria's scores is lower than the median of James's scores.
- b. James's scores are, on average, 12.5 points higher than Maria's scores.
- c. James's scores are more spread out than Maria's scores.
- d. James's highest score is greater than Maria's highest score.

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### 2013 SAT Scores

Source: <http://media.collegeboard.com/digitalServices/pdf/research/2013/TotalGroup-2013.pdf>

Mean Scores by Gender SAT Test-Takers

Gender	Total Test Takers	Critical Reading		Mathematics		Writing	
		Mean	SD	Mean	SD	Mean	SD
Male	776,092	499	117	531	121	482	115
Female	883,955	494	112	499	114	493	112

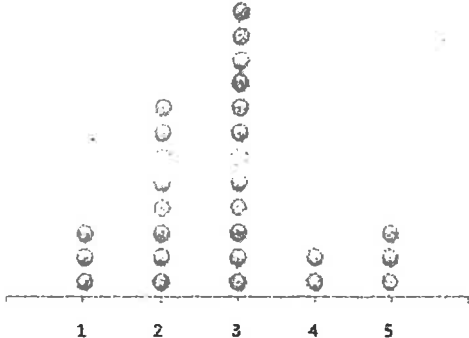
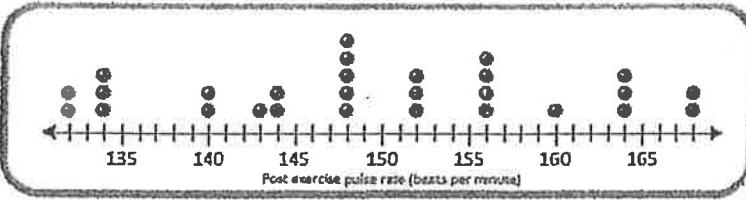
Compare the performance of boys and girls

Exit Ticket

8) a) Below are two dot plots and two standard deviations for sample data. Match the correct dot plot with the correct standard deviation, and then explain your choices.

Possible Standard Deviations:

- Standard Deviation: 1.0809
- Standard Deviation: 10.7586

Dot Plot	Standard Deviation	Explanation
<p align="center"><b>Family Size</b></p>  <p align="center">Number of Children in Family</p>		
 <p align="center">Post-exercise pulse rate (beats per minute)</p>		

Justify your answers to the questions below.

b) How would adding five families with no children affect the standard deviation for the first dot plot?

c) How will it affect the mean?

9) Without using calculations, estimate the standard deviation for the following sample data.

