Elementary Statistics	**Name:** _____
Study Guide 5	**Class:** _____
Due Date: _____	**Score:** _____

Your work must be very similar to my notes, lectures, or videos.

Be Neat, Organized, and No Work $\Leftrightarrow$ No Points

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1. Given: $n = 20$, $\sum x = 1570$, $\sum x^2 = 125696$, **minimum** $= 60$, **and maximum** $= 100$

(a) (1 point) Find the sample range.

(a) _____

(b) (1 point) Find the sample midrange.

(b) _____

(c) (2 points) Find $\bar{x}$. Round your answer to a whole number.

(c) _____

(d) (2 points) Find s^2 in reduced fraction

(d) _____

(e) (2 points) Find s. Round your answer to a whole number.

(e) _____

(f) (2 points) Estimate s by using the range rule–of–thumb.

(f) _____

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2. Consider the sample below:

2 0 5 5 4 10 1 5

(a) (1 point) Find the sample size.

(a) _____

(b) (1 point) Find the sample mode.

(b) _____

(c) (1 point) Find $\sum x$.

(c) _____

(d) (1 point) Find $\sum x^2$.

(d) _____

(e) (2 points) Find $\bar{x}$ by using the formula only. Round your answer to one decimal place.

(e) _____

(f) (2 points) Find s^2 by using the formula only. Simplify your answer to a reduced fraction.

(f) _____

(g) (2 points) Find s by using the formula only. Round your answer to one decimal place.

(g) _____

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3. Consider the sample below:

20 10 15 8 14 15 18 5 12 20 10 16

(a) (2 points) Find $\sum x$.

(a) _____

(b) (2 points) Find $\sum x^2$.

(b) _____

(c) (2 points) Find $\bar{x}$ by using the formula only. Round your answer to one decimal place.

(c) _____

(d) (2 points) Find s^2 by using the formula only. Simplify your answer to a reduced fraction.

(d) _____

(e) (2 points) Find s by using the formula only. Round your answer to one decimal place.

(e) _____

(f) (2 points) Estimate s by using the range rule–of–thumb.

(f) _____

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4. Scores of a math exam has a bell–shaped distribution with the mean of 84 and standard deviation of 7. Using the empirical rule,

(a) (2 points) Find its 68% range.

(a) _____

(b) (2 points) Find its usual range.

(b) _____

(c) (2 points) Find its 99.7% range.

(c) _____

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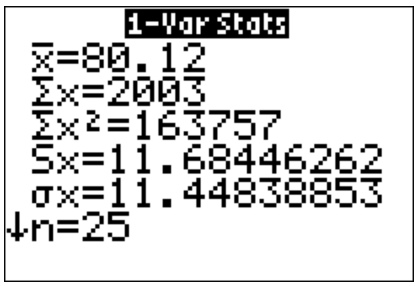
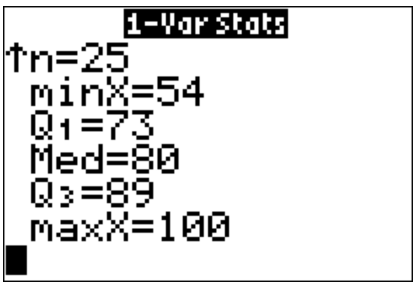
5. The following calculator displays present the basic computational statistics on a randomly selected sample.





(a) (2 points) Find the range and the midrange.

(a) _____

(b) (2 points) Round the sample mean and standard deviation to a whole number, then find the usual range of the sample.

(b) _____

(c) (2 points) Estimate the value of the sample standard deviation.

(c) _____

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6. Given: $n = 10$, $\sum x = 215$, **and** $\sum x^2 = 4750$

(a) (2 points) Find $\bar{x}$ **. Round your answer to one decimal place.**

(a) _____

(b) (3 points) Find s^2 **. Simply your answer to a reduced fraction.**

(b) _____

(c) (1 point) Find s **. Round your answer to one decimal place.**

(c) _____
