

## MATH 1342

### Homework 1 (Chapter 1)

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**Instructions:** Answer all questions through the EMCF tab of casa under the assignment named “Homework 1” before the deadline.

There is no “Submit” button. Your answers will be automatically submitted once the deadline arrives.

Assignments will be graded out of 10 points.

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#### 1. Section 1.1; Problem 2

- A. Population: All Children in the Country; Sample: All Children with last names beginning with M through R
- B. Population: All Students at the Elementary School; Sample: All Students at the Elementary School with last names beginning with M through R
- C. Population: All Students at the Elementary School with last names beginning with M through R; Sample: All Students at the Elementary School
- D. Population: All People; Sample: All Children attending the Elementary School
- E. Population: All Students at the Elementary School; Sample: All Students at the Elementary School that eat lunch

#### 2. Section 1.1; Problem 6

- A. Quantitative, Discrete
- B. Quantitative, Continuous
- C. Categorical
- D. Elemental
- E. None of the Above Choices

3. Section 1.2; Problem 4

- A. Mean: 79.2; Median: 7.92
- B. Mean: 6.25; Median: 7.92
- C. Mean: 12.23; Median: 6
- D. Mean: 7.92; Median: 6.25
- E. Mean: 8; Median: 6

4. Section 1.3; Problem 4

- A. Mean: 2.133; Variance: 3.267; Standard Deviation: 10.673
- B. Mean: 2.133; Variance: 1.344; Standard Deviation: 1.807
- C. Mean: 2.133; Variance: 3.267; Standard Deviation: 1.807
- D. Mean: 3.000; Variance: 1.807; Standard Deviation: 3.267
- E. Mean: 3.000; Variance: 3.267; Standard Deviation: 1.807

5. Section 1.4; Problem 4 (Range; IQR; 70<sup>th</sup> Percentile)

- A. Range: 250 to 1230; IQR: 305; 70<sup>th</sup> Percentile: 12
- B. Range: 980; IQR: 305; 70<sup>th</sup> Percentile: 11.2
- C. Range: 980; IQR: 305; 70<sup>th</sup> Percentile: 840
- D. Range: 980; IQR: 472.5; 70<sup>th</sup> Percentile: 12
- E. Range: 980; IQR: 472.5; 70<sup>th</sup> Percentile: 840

Use the following for problems 6 and 7:

Below is a stem and leaf diagram of the of exam grades in a college class.

The decimal point is 1 digit(s) to the right of the |

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5|3 4 6 7
6|1 8 9 9
7|3 4 5 5 7 8 8 9
8|0 0 1 4 5 8 8
9|0 1 1 3 5 7 7 8
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6. Find the median (Use the same Answer Choices for 6 & 7)

7. Find the mean

A. 7.346

B. 78.516

C. 7.852

D. 79

E. 77

8. Section 1.5; Problem 2 (Range of Outliers)

A. Outliers occur at values less than 44 or greater than 108

B. Outliers occur at values less than 56 or greater than 96

C. Outliers occur at values less than 68 or greater than 84

D. Outliers occur at values between 44 and 108

E. Outliers cannot occur in a distribution of this type

9. Circle which is the most resistant to outliers?

- A. mean
- B. median
- C. range
- D. variance
- E. none of these

10. A set of data is found to have a sample variance of 81. Suppose that 16 is added to each of the numbers in the data set. Circle the standard deviation of the new data set?

- a. 4
- b. 9
- c. 13
- d. 81
- e. 97