

East Los Angeles College
Department of Mathematics

Math 227
Test 1

Show work for credit.

How many absences do you have in your Statistics class?

The following data was collected in days.

6, 2, 0, 1, 1, 0, 2, 4, 0

1. Determine the mean of this data approximated to the nearest tenths.
2. Determine the median of this data.
3. Determine the mode for this data.
4. Determine the variance for this data approximated to the nearest tenths.
5. Determine the standard deviation for this data approximated to the nearest tenths.

How long did you wait in line (minutes) to buy your Statistics Textbook?

The following data was gathered and organized into a frequency table. Fill in the table below and approximate the **relative frequency** to the nearest **thousandths**.

| Min | f | rf | Percent | m |
|----------|----|----|---------|---|
| 0 to 4 | 8 | | | |
| 5 to 9 | 10 | | | |
| 10 to 14 | 6 | | | |
| 15 to 19 | 4 | | | |
| 20 to 24 | 3 | | | |

Using the table above, what percent of the students waited for:

6. At least 5 minutes?
7. No more than 14 minutes?
8. Between 5 and 19 minutes?
9. More than 14 minutes?
10. Less than 5 minutes?

11. What is the mean for this distribution? Approximate to the nearest tenths
12. What is the variance for this distribution? Approximate to the nearest tenths
13. What is the standard deviation for this distribution? Approximate to the nearest tenths.
14. Create a Histogram describing this distribution.
15. Create a frequency polygon describing this distribution.

16. Determine who had the better GPA for the semester. Hannah Montana or Miley Cyrus? Approximate the GPA's to the nearest hundredths.

Hannah
Montana

Miley Cyrus

| Course | Units | Grade |
|------------|-------|-------|
| Statistics | 4 | B |
| English | 3 | C |
| PE | 1 | F |
| Chemistry | 5 | A |
| Health | 2 | D |

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| Statistics | 4 | A |
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| Chemistry | 5 | B |
| Health | 2 | F |

Grading on a curve?

17. Test scores were gathered and a mean was determined to be 100.4 with a standard deviation of 24.6. Approximate z-scores to the nearest hundredths.

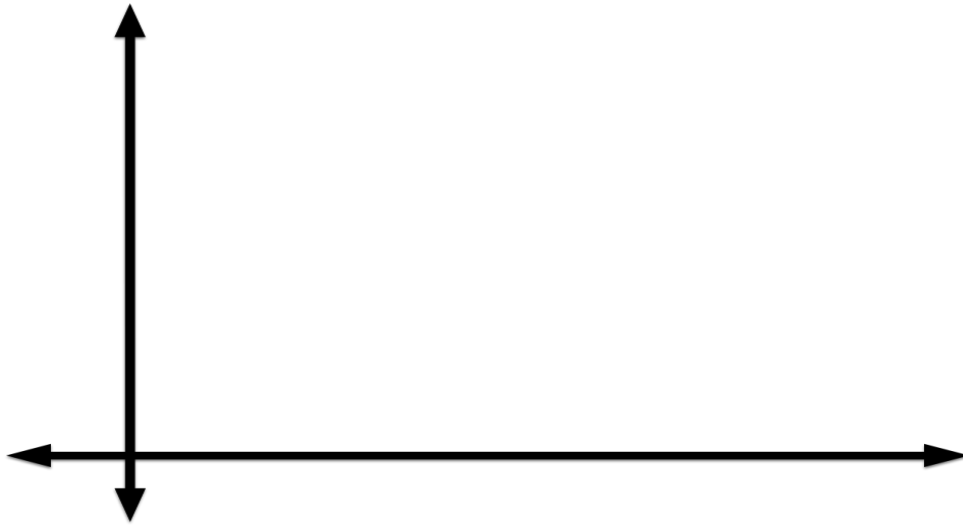
| Name | Test Score | Z-Score | Standard Grade | Curved Grade |
|---------|------------|---------|----------------|--------------|
| Maria | 150 | | | |
| Jessica | 138 | | | |
| Eric | 123 | | | |
| Lyle | 110 | | | |
| Francis | 92 | | | |
| Sam | 36 | | | |

18. What's your name?

Answer Sheet

| | | | |
|---|--|----|-----------|
| 1 | | 10 | |
| 2 | | 11 | |
| 3 | | 12 | |
| 4 | | 13 | |
| 5 | | 14 | Use Graph |
| 6 | | 15 | Use Graph |
| 7 | | 16 | |
| 8 | | 17 | See Table |
| 9 | | 18 | |

Graph Paper
14.



15.

