Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6th Grade Math- C. Rayman

Unit 5: Univariate Data

Hour \_\_\_\_\_\_\_\_\_\_\_

Table: U of M MSU CMU WMU KC EMU KVCC

Lesson 8: Variability in a Data Distribution

Problem Set

1. The number of pockets in the clothes worn by seven students to school yesterday were , , ,, ,,. Today those seven students each had three pockets in their clothes.
   1. Draw one dot plot for what the students wore yesterday, and another dot plot for what the students wore today. Be sure to use the same scales. Show the means by using the balancing ∆ symbol.
   2. For each distribution, find the mean number of pockets worn by the seven students.
   3. For which distribution is the mean number of pockets a better indicator of what is “typical?” Explain.
2. The number of minutes (rounded) it took to run a certain short cross-country route was recorded for each of five students. The resulting data were , , , and minutes. The number of minutes (rounded to the nearest minute) it took the five students to run a different cross-country route was also recorded, resulting in the following data: , ,, , and minutes.
   1. Draw dot plots for the two distributions of the time it takes to run a cross-country route. Be sure to use the same scale on both dot plots.
   2. Do the distributions have the same mean?
   3. In which distribution is the mean a better indicator of the typical amount of time taken to run its cross-country route? Explain.
3. The following table shows the prices per gallon of gasoline (in cents) at five stations across town as recorded on Monday, Wednesday, and Friday of a certain week.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Day | R&C | Al’s | PB | Sam’s | Ann’s |
| Monday |  |  |  |  |  |
| Wednesday |  |  |  |  |  |
| Friday |  |  |  |  |  |

* 1. The mean price per day over the five stations is the same for the three days. Without doing any calculation and simply looking at Friday’s prices, what must the mean price be?
  2. In which daily distribution is its mean a better indicator of the typical price per gallon for the five stations? Explain.