Lesson Summary

We can compare distributions based on their means, but variability must also be considered. The mean of a distribution with small variability (not a lot of spread) is considered to be a better indication of a typical value than the mean of a distribution with greater variability (or wide spread).

Problem Set

1. The number of pockets in the clothes worn by seven students to school yesterday was 4, 1, 3, 4, 2, 2, 5. Today, those seven students each had three pockets in their clothes.
   a. Draw one dot plot of the number of pockets data for what students wore yesterday and another dot plot for what students wore today. Be sure to use the same scale.
   b. For each distribution, find the mean number of pockets worn by the seven students. Show the means on the dot plots by using the balancing Δ symbol.
   c. For which distribution is the mean number of pockets a better indicator of what is typical? Explain.

2. The number of minutes (rounded to the nearest minute) it took to run a certain route was recorded for each of five students. The resulting data were 9, 10, 11, 14, and 16 minutes. The number of minutes (rounded to the nearest minute) it took the five students to run a different route was also recorded, resulting in the following data: 6, 8, 12, 15, and 19 minutes.
   a. Draw dot plots for the distributions of the times for the two routes. Be sure to use the same scale on both dot plots.
   b. Do the distributions have the same mean? What is the mean of each dot plot?
   c. In which distribution is the mean a better indicator of the typical amount of time taken to run the 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	359	358	362	359	362
Wednesday	357	365	364	354	360
Friday	350	350	360	370	370

   a. The mean price per day for the five stations is the same for each of the three days. Without doing any calculations and simply looking at Friday's prices, what must the mean price be?
   b. For which daily distribution is the mean a better indicator of the typical price per gallon for the five stations? Explain.

This work is derived from Eureka Math ™ and licensed by Great Minds. ©2015 Great Minds. eureka-math.org
This file derived from G6-M6-TE-1.3.0-10.2015
This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.