

1. A man in the United States who is 67 inches tall (1 standard deviation below average) is in the 16th percentile for height. What is the percentile of a man who is 73 inches tall? Why isn't it also 16%?

2. In Farmville, VA, the mean September high temperature is about 80°F with a standard deviation of 8.0°. Draw a sketch of the bell curve model for September high temperatures in Farmville, VA. Label the mean, and the points that are 1 and 2 standard deviations away from the mean.

3. About how often will the high temperature be over 90°F in September?

4. How cold would a September day be if the high temperature was in the 10th percentile?

5. What percentage of September days have highs in the 70's?

- 6. If you look at the histogram of September high temperatures in Farmville, VA for the last 10 years, you can see that the data doesn't really fit a bell curve very well. What does this mean about our numbers in the previous problems?
 - A. The bell curve is just a model. It doesn't matter if it is accurate or not.
 - B. The bell curve model doesn't fit the data well, so we shouldn't trust its predictions very much.
 - C. The bell curve model is more accurate than the data, so we should trust it.

Histogram of Your Data

