**14.4 Worksheet Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. What percent of data in a normal distribution are within
   1. One standard deviation of the mean? \_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Two standard deviations of the mean?\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Three standard deviations of the mean?\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What does a z-score tell us?
3. Draw a picture for each and show all work.
   1. What percent of data are between z = 0 and z = 2.2
   2. What percent of data are between z = -1.3 and z = 1.8
   3. What percent of data are between z = -.28 and z=-.14
   4. What percent of data are between z = .24 and .85
   5. What percent of data are below z = 2.3
   6. What percent of data are above z = -1.8
   7. What percent of data are below z = 1.3
   8. What percent of data are between z = 1.4 and z = 1.93
4. Find the following. Show all work and draw the information on a curve for each problem. Use paper if needed.
   1. Mean 30, Standard deviation is 3
      1. Percent of data between 30 and 33
      2. Percent of data between 27 and 33
      3. Percent of data between 33 and 36
      4. Percent of data above 27
      5. Percent of data below 30
      6. Percent of data between 24 and 33
      7. Percent of data above 24
      8. Percent of data above 33
      9. Percent of data above 21
5. What is the z score for the area: (closest value)
   1. 99%
   2. 24%
   3. 18%
   4. 56%
   5. 13%
   6. 22%
   7. 26%
   8. 39%