

1. A set of data is normally distributed with a mean of 72 and a standard deviation of 4. Find the probability that a randomly selected value from the sample is

a. more than 76

b. at most 64

c. between 68 and 80

d. less than 74

2. Which sampling method appears to have been used in the following scenarios? (Choices include random, convenience, self-selected, stratified, cluster and systematic.)

a. To find out whether the students at the school will attend the prom, a teacher surveys her students in class at that time.

b. To determine how students feel about exercise, a survey is mailed out to all the students and data is collected from the ones returned.

c. As students pour into the gym for a pep rally, every tenth student is asked whether they would rather be in class.

3. 3000 adults over the age of 21 in the U.S. were surveyed and 27% responded that Baseball was their favorite professional sport.

a. Identify the population and the sample.

b. Determine the margin of error

c. Give an interval that is likely to contain the exact percentage of adults who favor Baseball.