

## Chapter 6 Examples

1. The amount of hamburger beef sold per day by the McDonalds restaurants across a large city is normally distributed. The mean is calculated and found to be 2,100 pounds and the standard deviation is 450 pounds. What is the probability that the population average amount of hamburger beef sold will be between 2,425 pounds and 2,800 pounds?

**ANSWER: There is a 17.64% chance that the average amount of hamburger beef sold will be between 2,425 to 2,800 pounds.**

2. The dean of a business school claims that the average MBA graduate is offered a starting salary of \$55,000. The standard deviation of the offers is \$4,600. The bottom 23% of the MBA graduates can expect to earn a starting salary of no more than how much?

**ANSWER: The bottom 23% of the MBA graduates can be expected to earn a starting salary of no more than \$51,596.**

3. Suppose that during any hour in a large department store, the average number of shoppers is 448, with a standard deviation of 21 shoppers. What is the probability that at any given hour the number of shoppers will be between 420 and 500 shoppers?

**ANSWER: There is a 90.16% chance that the number of shoppers at a given hour will be between 420 to 500 shoppers.**

4. A particular automobile costs an average of \$17,755 in the Pacific Northwest. The standard deviation of prices is \$650. Suppose an automobile is chosen at random. What is the probability that the automobile will cost of less than \$18,800?

**ANSWER: There is a 94.63% chance that the cost for the car will be less than \$18,800.**