6.SP Puppy Weights

Task

Below are the 25 birth weights, in ounces, of all the Labrador Retriever puppies born at Kingston Kennels in the last six months.

13, 14, 15, 15, 16, 16, 16, 16, 17, 17, 17, 17, 17, 17, 17, 18, 18, 18, 18, 18, 18, 18, 18, 19, 20

a. Use an appropriate graph to summarize these birth weights.

b. Describe the distribution of birth weights for puppies born at Kingston Kennels in the last six months. Be sure to describe shape, center and variability.

c. What is a typical birth weight for puppies born at Kingston Kennels in the last six months? Explain why you chose this value.

IM Commentary

A dotplot, histogram or boxplot are appropriate ways to summarize these data. The description in part (b) should address the shape, center and spread in the distribution, using mean or median for center and mean absolute deviation or interquartile range for spread.

Solution

a. Possible graphical displays are a dotplot, histogram or boxplot (see below).

Birth Weight (ounces)

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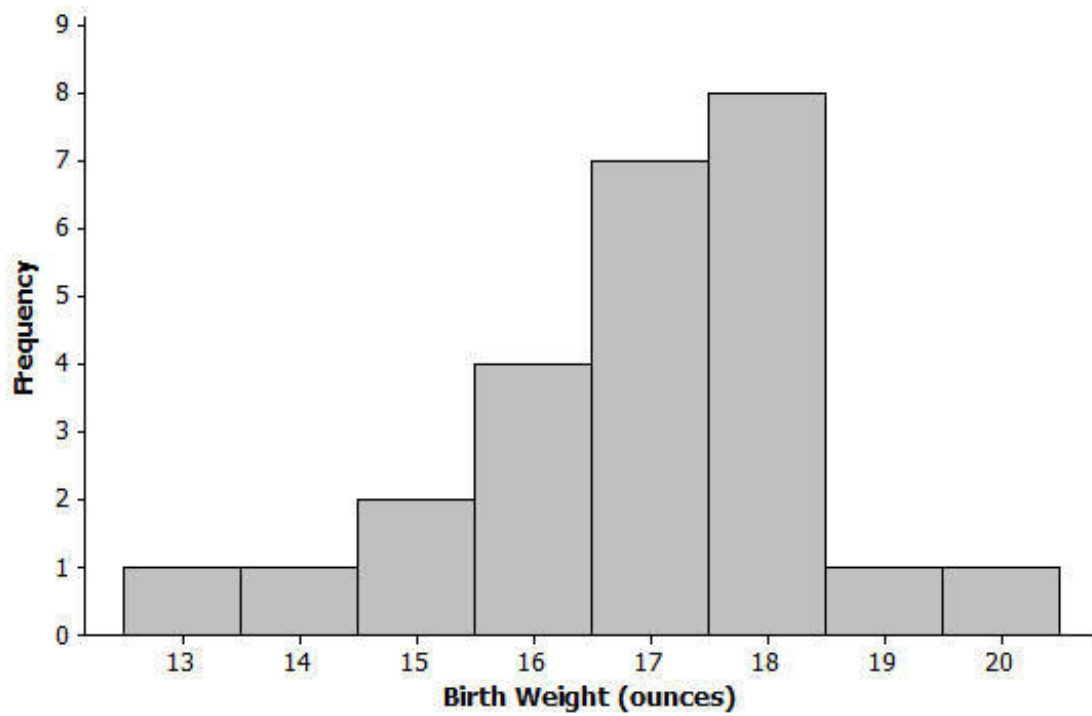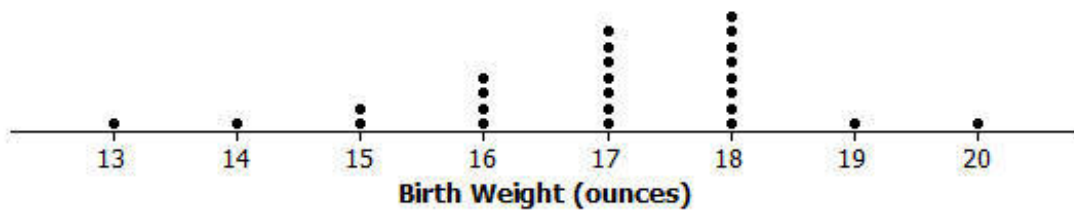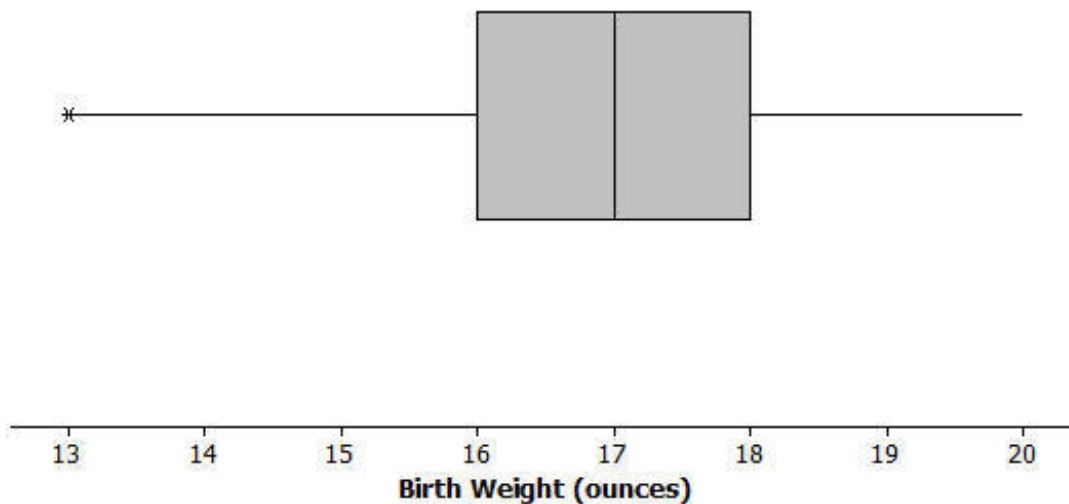
b. The distribution of birth weights is centered at approximately 17 (median = 17 ounces, mean = 16.92 ounces), and the interquartile range is 2 ounces and the mean absolute deviation (MAD) is 1.149 ounces. The distribution has a longer tail for lower values (that is, it is skewed left).

c. A typical weight is one that is about 17 ounces. A student might also choose 18 ounces, the mode of this data distribution.