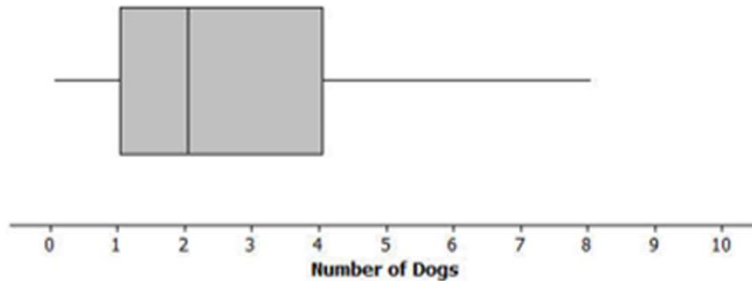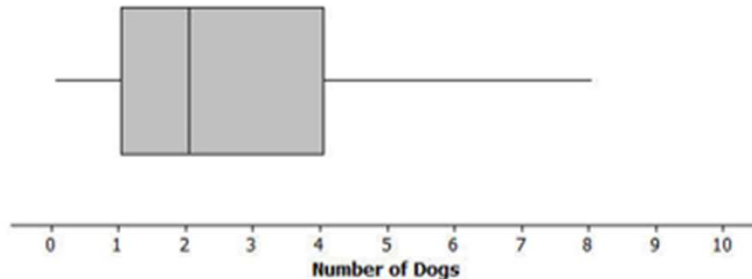# Box Plot Worksheet

The box plot below summarizes data from a survey of households about the number of dogs they have. Identify each of the following statements as true or false. Explain your reasoning in each case.

Number of Dogs

a) The maximum number of dogs per house is 8.

b) At least $\frac{1}{2}$ of the houses have 2 or more dogs.

c) All of the houses have dogs.

d) Half of the houses surveyed have between 2 and 4 dogs.

e) Most of the houses surveyed have no dogs.

Box Plot Worksheet

The box plot below summarizes data from a survey of households about the number of dogs they have. Identify each of the following statements as true or false. Explain your reasoning in each case.

a) The maximum number of dogs per house is 8.

True, because the line segment at the top goes to 8.

b) At least $\frac{1}{2}$ of the houses have 2 or more dogs.

True, because 2 is the median.

c) All of the houses have dogs.

False, because the lower line segment starts at 0, so at least one household does not have a dog as a pet.

d) Half of the houses surveyed have between 2 and 4 dogs.

False, because only about 25% of the houses would have between 2 and 4 dogs.

e) Most of the houses surveyed have no dogs.

False, because at least $\frac{3}{4}$ of those surveyed had 1 or more dogs.

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