Activity 3: Gaps and Clusters

PURPOSE Interpret data by identifying gaps and clusters.

GROUPING Work individually.

GETTING STARTED The average life spans of several selected mammals are shown in the following table.

Average Life Spans of Selected Mammals

Animal	Life Span (yrs)
Bear	15–30
Cat	10–12
Cow	9–12
Deer	10–15
Dog	10–12
Elephant	30–40
Fox	8–10
Goat	12
Guinea Pig	3
Hamster, golden	2

Animal	Life Span (yrs)
Hippopotamus	30
Horse	20–25
Lion	10
Monkey	12–15
Mouse	1–3
Pig	10
Rat	3
Sheep	12
Squirrel	8–9
Wolf	10–12

SOURCE: 1996 Information Please Almanac.

1. Make a line plot of the life spans by plotting either the given value or the midpoint of the range of values for each animal.

Use your line plot to answer the following questions.

2. A *gap* in a set of data is a large interval that doesn't contain any data points. One gap occurs between 3 and 8.5 years. Where else do you see gaps in the data?

3. a. A *cluster* is an isolated group of data points. The life spans from 8.5 to 13.5 years form a cluster. In comparison to the other animals in the table, how would you describe the size of the animals that have life spans from 8.5 to 13.5 years?

   b. Where else do you see clusters in the data? How would you describe the animals with life spans in those clusters?

4. Use the table and your line plot to help estimate the average life span of each of each animal below. Explain your answers.

   a. antelope b. giraffe c. chipmunk