

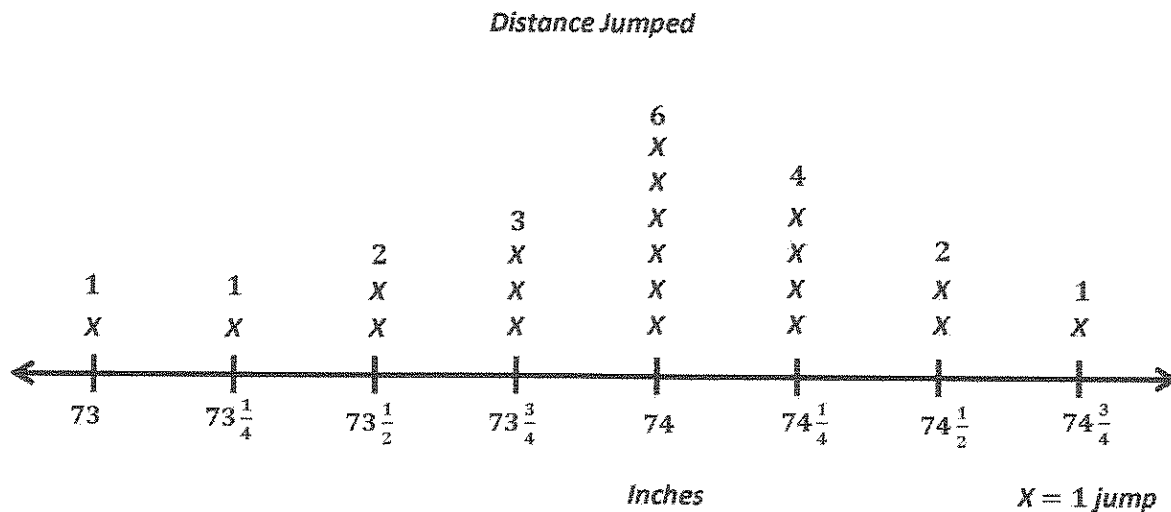
G3-M6-Lesson 8

Samuel is training his frog to compete in the frog-jumping contest at the county fair. The table below shows the distances that Samuel's frog jumped during his training time.

Distance Jumped (in Inches)				
$73\frac{3}{4}$ ✓	74 ✓	$74\frac{1}{4}$ ✓	74 ✓	$73\frac{1}{2}$ ✓
$74\frac{1}{2}$ ✓	$74\frac{1}{4}$ ✓	$74\frac{1}{2}$ ✓	$73\frac{3}{4}$ ✓	74 ✓
$73\frac{1}{4}$ ✓	$74\frac{3}{4}$ ✓	73 ✓	$74\frac{1}{4}$ ✓	$73\frac{1}{2}$ ✓
74 ✓	$73\frac{3}{4}$ ✓	74 ✓	74 ✓	$74\frac{1}{4}$ ✓

I can circle the shortest and longest distances to find the endpoints for my line plot.

- a. Use the data to create a line plot below.



- b. Explain the steps you took to create the line plot.

I found the endpoints by finding the shortest and longest distances, 73 inches and $74\frac{3}{4}$ inches. Then I figured out what interval I should use on my line plot by finding the smallest unit, $\frac{1}{4}$ inch. I marked the endpoints and partitioned and labeled quarter-inch intervals. Then I recorded the data by drawing X's above each measurement. I wrote a title, made a key, and labeled the measurements as inches.

I can count by quarter inches from 73 inches to $74\frac{3}{4}$ inches to figure out how many quarter-inch intervals I need on my line plot.

- c. How many more times did Samuel's frog jump $74\frac{1}{4}$ inches than $73\frac{1}{2}$ inches?

$$4 - 2 = 2$$

I can subtract the number of times the frog jumped $73\frac{1}{2}$ inches from the number of times the frog jumped $74\frac{1}{4}$ inches.

Samuel's frog jumped $74\frac{1}{4}$ inches 2 more times than it jumped $73\frac{1}{2}$ inches.

- d. Find the three most frequent measurements on the line plot. What does this tell you about the distance of most of the frog's jumps?

The three most frequent measurements on the line plot are $73\frac{3}{4}$ inches, 74 inches, and $74\frac{1}{4}$ inches. This tells me that most of the frog's jumps were between $73\frac{3}{4}$ inches and $74\frac{1}{4}$ inches.

I can prove this is true by subtracting the number of times the frog jumped $73\frac{3}{4}$ inches, 74 inches, or $74\frac{1}{4}$ inches from the total number of times the frog jumped.

$$20 - 13 = 7$$

Thirteen of the frog's jumps were between $73\frac{3}{4}$ inches and $74\frac{1}{4}$ inches. Seven of the jumps were not part of the three most frequent measurements.