1. Ms. Leal measures the heights of the students in her kindergarten class. The heights are shown on the line plot below.

Heights of Students in Ms. Leal’s Kindergarten Class

| 40 | 40\(\frac{1}{2}\) | 41 | 41\(\frac{1}{2}\) | 42 | 42\(\frac{1}{2}\) | 43 | 43\(\frac{1}{2}\) | 44 |

\(X = 1\) student

a. How many students in Ms. Leal’s class are 41 inches tall?

4 students in Ms. Leal’s class are 41 inches tall.

b. How many students are in Ms. Leal’s class? How do you know?

There are 20 students in Ms. Leal’s class. Each \(X\) stands for 1 student, and there are 20 \(X\)'s on the line plot.

c. How many students in Ms. Leal’s class are more than 42 inches tall?

9 students in Ms. Leal’s class are more than 42 inches tall.

d. Ms. Leal says that for the class picture students in the back row must be at least 42\(\frac{1}{2}\) inches tall. How many students will be in the back row?

9 students will be in the back row.
2. Mr. Stein’s class is studying plants. They plant seeds in clear plastic bags and measure the lengths of the roots. The lengths of the roots in inches are shown in the line plot below.

Lengths of Plants’ Roots

- 2
- 2 1/4
- 2 1/2
- 2 3/4
- 3
- 3 1/4
- 3 1/2
- 3 3/4
- 4

X = 1 plant

a. How many roots did Mr. Stein’s class measure? How do you know?

Mr. Stein’s class measured 24 roots. Each X stands for 1 plant, and there are 24 X’s in the line plot.

b. Teresa says that the 3 most frequent measurements in order from shortest to longest are 3 1/4 inches, 3 3/4 inches, and 3 1/2 inches. Do you agree? Explain your answer.

No, I disagree with Teresa. The correct order is 3 inches, 3 1/4 inches, and 3 1/2 inches.

c. Gerald says that the most common measurement is 14 quarter inches. Is he right? Why or why not?

Gerald is right. Each inch has 4 quarter inches. So, 3 inches has 12 quarter inches (3x4=12) plus 2 more quarter inches makes 14 total quarter inches.