LESSON MAKER PRO

Dot Plot Detectives

Organize data with titles, axes, and keys.

GRADE 5 · 5.PS.1.c

5.PS.1.c "Organize and represent a data set using a line plot (dot plot) with a title, labeled axes, and a key, with and without the use of technology tools. Line plots (dot plots) may contain whole numbers, fractions, or decimals."

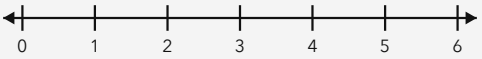
NAME _____ DATE _____

BUILD A CLEAR PLOT

Put one dot above the number for each data value. Stack matching dots, then add a title, an x-axis label, and a key. For example, if 10 appears twice, place two stacked dots above 10.

WORKED EXAMPLE

The data are 1, 1, 3, 4, 4, 4 minutes. Use the printed number line to plan a line plot titled "Puzzle Times."



1. Write the title "Puzzle Times."
2. Label the x-axis "Time (minutes)."
3. Stack 2 dots at 1, 1 dot at 3, and 3 dots at 4.
4. Add the key: Each dot = 1 puzzle.

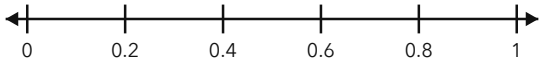
Answer: Title: Puzzle Times; x-axis: Time (minutes); key: Each dot = 1 puzzle; dots: 1 has 2, 3 has 1, 4 has 3.

PRACTICE 4 problems

1 Make a line plot titled "Seedling Heights" for 1/4, 1/2, 1/2, 3/4, 3/4 inches. Include an x-axis label and a key.

ANSWER _____

2 Use the printed number line to make a line plot titled "Jump Distances" for 0.2, 0.4, 0.4, 0.6 meters. Include an x-axis label and a key.



ANSWER _____

3 Maya's line plot has a title, an x-axis label, and dots. It does not tell what one dot means. What must she add?

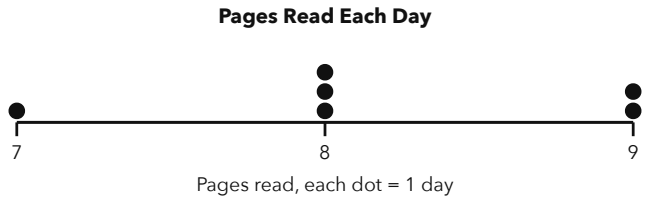
ANSWER _____

4 Make a line plot titled "Robot Race Times" for 2.5, 2.5, 2.7, 2.9, 2.9 seconds. Include an x-axis label and a key.

ANSWER _____

APPLY IT Show your work

1 The line plot shows pages Jalen read each day. How many days show 8 pages? Which page total appears most?



ANSWER _____

2 At game club, players earned 1/8, 2/8, 2/8, 3/8, and 3/8 of a badge. Make a line plot titled "Badge Progress." Include an x-axis label and a key.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A line plot titled "Drone Flight Times" has 8 dots. Put 4 dots at 1.2 seconds and 2 dots at 1.4 seconds. Put the remaining dots at 1.6 seconds. Include an x-axis label and a key. Explain how you found the remaining number of dots.

WORK SPACE AND ANSWER

ANSWER KEY

Dot Plot Detectives

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Make a line plot titled "Seedling Heights" for 1/4, 1/2, 1/2, 3/4, 3/4 inches. Include an x-axis label and a key.	**Title: Seedling Heights; x-axis: Height (inches); key: Each dot = 1 seedling; dots: 1/4 has 1, 1/2 has 2, 3/4 has 2.**
2	Use the printed number line to make a line plot titled "Jump Distances" for 0.2, 0.4, 0.4, 0.6 meters. Include an x-axis label and a key.	**Title: Jump Distances; x-axis: Distance (meters); key: Each dot = 1 jump; dots: 0.2 has 1, 0.4 has 2, 0.6 has 1.**
3	Maya's line plot has a title, an x-axis label, and dots. It does not tell what one dot means. What must she add?	**a key**
4	Make a line plot titled "Robot Race Times" for 2.5, 2.5, 2.7, 2.9, 2.9 seconds. Include an x-axis label and a key.	**Title: Robot Race Times; x-axis: Time (seconds); key: Each dot = 1 race; dots: 2.5 has 2, 2.7 has 1, 2.9 has 2.**

PART 2 · APPLY IT

1. **3 days; 8 pages** Count the three dots above 8. Eight has more dots than 7 or 9.
2. **Title: Badge Progress; x-axis: Fraction of badge earned; key: Each dot = 1 player; dots: 1/8 has 1, 2/8 has 2, 3/8 has 2.** Place one dot for each player and stack dots for matching fractions.

CHALLENGE

Title: Drone Flight Times; x-axis: Time (seconds); key: Each dot = 1 flight; dots: 1.2 has 4, 1.4 has 2, 1.6 has 2. Explanation: 8 - 4 - 2 = 2 remaining dots.

Accept correctly stacked dot plots with an equivalent clear x-axis label and a key stating that each dot represents one item. Accept equivalent fraction labels such as 2/8 written as 1/4 only when the plotted values remain in the correct locations.