LESSON MAKER PRO

Dot Plot Detectives

Show measurement data with stacks of dots.

GRADE 4 · 4.MDR.6.3

4.MDR.6.3 "Create dot plots to display a distribution of numerical (quantitative) measurement data."

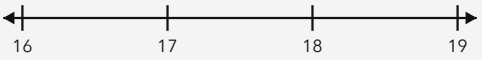
NAME _____ DATE _____

BUILD A DOT PLOT

A dot plot puts measurement values on a number line. Place one X above a value for each time it appears, stacking Xs when a value repeats.

WORKED EXAMPLE

Use the printed number line as the axis. Make a dot plot for these pencil lengths in centimeters: 16, 18, 18, 19, 16.



1. Write each whole-number length on the number line.
2. Place one X above 16 for each pencil that is 16 cm long.
3. Stack Xs above values that repeat.

Answer: 16: XX; 17: 0; 18: XX; 19: X

PRACTICE 6 problems

1 Make a dot plot for these bean plant heights in centimeters: 1, 1, 2, 5, 5, 5.

ANSWER _____

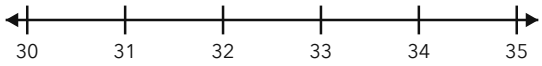
2 A gamer earned these points in five rounds: 7, 8, 8, 9, 10. Make a dot plot.

ANSWER _____

3 A paper airplane flew these distances in feet: 21, 21, 23, 24, 24, 26. Make a dot plot.

ANSWER _____

4 Use the printed number line as the axis. Make a dot plot for the numbers of pages read by five students: 30, 32, 32, 34, 35.



ANSWER _____

5 Make a dot plot for these jump-rope scores: 40, 41, 41, 42, 44, 44.

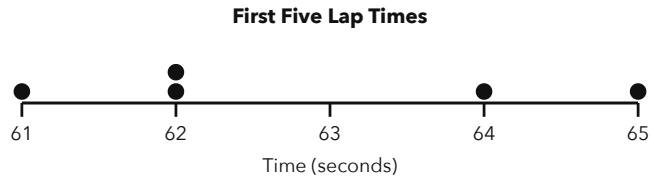
ANSWER _____

6 The temperatures in a classroom greenhouse were 50, 52, 52, 53, 55 degrees. Make a dot plot. Then name the temperature that appeared most often.

ANSWER _____

APPLY IT Show your work

1 The dot plot shows the first five lap times, in seconds, from a school running club. Three more lap times were 61, 63, and 63 seconds. Create a new dot plot for all eight lap times.



ANSWER _____

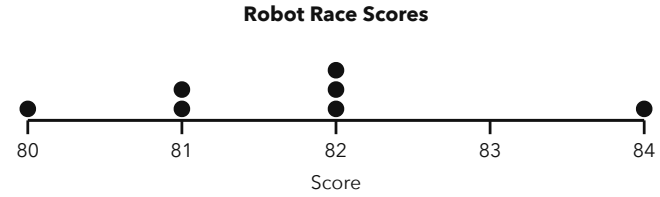
2 At a game-design club, five players tested a level. Their coin totals were 70, 72, 72, 73, and 75. Create a dot plot. Which coin total was most common?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The dot plot shows scores from seven robot races. Three more scores are added: 80, 83, and 83. Create a revised dot plot for all ten scores. Which score has the most dots? Explain.



WORK SPACE AND ANSWER

ANSWER KEY

Dot Plot Detectives

GRADE 4 · 4.MDR.6.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Make a dot plot for these bean plant heights in centimeters: 1, 1, 2, 5, 5, 5.	**1 cm: XX; 2 cm: X; 3 cm: 0; 4 cm: 0; 5 cm: XXX**
2	A gamer earned these points in five rounds: 7, 8, 8, 9, 10. Make a dot plot.	**7: X; 8: XX; 9: X; 10: X**
3	A paper airplane flew these distances in feet: 21, 21, 23, 24, 24, 26. Make a dot plot.	**21 ft: XX; 22 ft: 0; 23 ft: X; 24 ft: XX; 25 ft: 0; 26 ft: X**
4	Use the printed number line as the axis. Make a dot plot for the numbers of pages read by five students: 30, 32, 32, 34, 35.	**30: X; 31: 0; 32: XX; 33: 0; 34: X; 35: X**
5	Make a dot plot for these jump-rope scores: 40, 41, 41, 42, 44, 44.	**40: X; 41: XX; 42: X; 43: 0; 44: XX**
6	The temperatures in a classroom greenhouse were 50, 52, 52, 53, 55 degrees. Make a dot plot. Then name the temperature that appeared most often.	**50: X; 51: 0; 52: XX; 53: X; 54: 0; 55: X. Most often: 52 degrees.**

PART 2 · APPLY IT

1. **61 seconds: XX; 62 seconds: XX; 63 seconds: XX; 64 seconds: X; 65 seconds: X** Combine the three new times with the five times in the plot, then stack one mark for each matching time.
2. **70: X; 71: 0; 72: XX; 73: X; 74: 0; 75: X. Most common: 72 coins.** Place one mark for each coin total. The stack above 72 has two marks, more than any other stack.

CHALLENGE

80: XX; 81: XX; 82: XXX; 83: XX; 84: X. Score 82 has the most dots because it has three dots, and every other score has two or fewer.

Accept dot plots made with dots, Xs, or circles if there is one mark for each measurement and repeated values are stacked correctly. Empty values between the least and greatest measurements may be shown with no marks or with a count of 0.