

Scoop Test Data

Use a bar graph to evaluate a tool test.

4.1.c “interpreting, analyzing, and evaluating data organize and represent data in bar graphs and line graphs interpret and analyze data represented in bar graphs and line graphs compare two different representations of the same data (e.g....”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the sentence that states the scoop's goal, and circle the two bars that meet that goal.

Testing a Bean Scoop

- ① To help move dry beans into planting pots, Maya's team made a small cardboard scoop. The scoop was meant to carry 20 beans from a tray to a pot without dropping any. They ran four tests. After each test, they counted the beans that reached the pot. The bar graph shows their results.

BEANS DELIVERED BY THE SCOOP



beans that reached the pot

- ② Each bar stands for one test, and its height shows how many beans arrived safely. Trial 2 and Trial 4 have bars at 20 beans. Trial 1 is the shortest bar, at 18 beans. The team first wrote the counts in a data chart. The bar graph makes the highest and lowest results quicker to compare.
- ③ Because the scoop delivered all 20 beans in only two tests, it did not work perfectly every time. The team noticed a bent side after Trial 1. They could strengthen that side, then test the scoop again. If they tracked results across many days, a line graph could show change over time.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What does the height of each bar show?

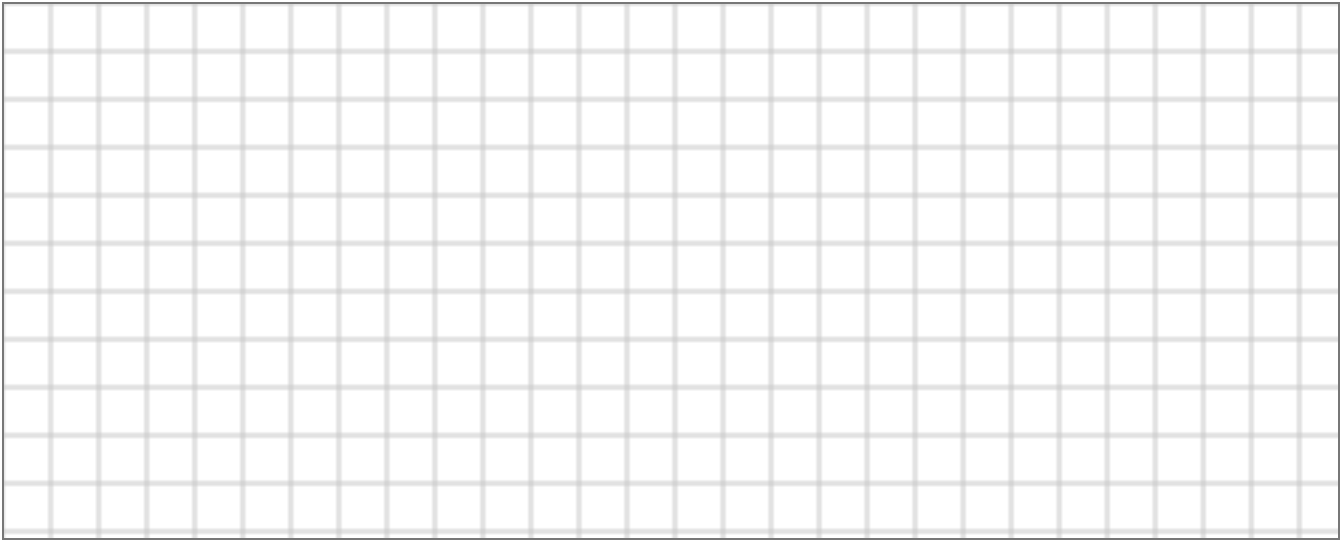
2 How many beans reached the pot in Trial 3?

3 How many fewer beans did Trial 1 deliver than the scoop's 20-bean goal?

4 Why was the bar graph useful after the team made its data chart?

3 YOUR TURN _____ Your own words

A team tested a redesigned scoop four times. It delivered 20, 20, 20, and 19 beans in Trials 1 through 4. Use the grid to draw a bar graph with a title, trial labels, and a vertical label. Then write two sentences that tell whether the scoop works consistently and use the data as evidence.



PART 1 • READ AND MARK

Underline the sentence that states the scoop's goal, and circle the two bars that meet that goal. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What does the height of each bar show?	The number of beans that reached the pot safely in that test.
2	How many beans reached the pot in Trial 3?	19 beans.
3	How many fewer beans did Trial 1 deliver than the scoop's 20-bean goal?	2 fewer beans.
4	Why was the bar graph useful after the team made its data chart?	It made the highest and lowest results quicker to compare.

PART 3 • YOUR TURN (SAMPLE ANSWER)

A bar graph titled Redesigned Scoop Tests has Trials 1, 2, 3, and 4 on the horizontal axis and Beans Delivered on the vertical axis, with bars at 20, 20, 20, and 19. The scoop does not work consistently because Trial 4 delivered 19 beans instead of the 20-bean goal.

Accept a correctly labeled bar graph with bar heights of 20, 20, 20, and 19. The written conclusion should state that the redesigned scoop is not fully consistent and cite Trial 4 or the 19-bean result as evidence.