

Track the Trend

Read a line graph, spot patterns, and predict.

GRADE 4 • 4.PS.1.d.iv

4.PS.1.d.iv "Analyze data represented in line graphs and communicate results orally and in writing: draw conclusions about the data and make predictions based on the data to answer questions; and"

NAME _____

DATE _____

READ AND PREDICT

Read each point on the line graph, then compare values by subtracting. If the data change in a repeating way, use that pattern to predict the next value. A prediction is based on the data, not a sure fact.

WORKED EXAMPLE

A line graph shows 12 birds on Monday, 17 on Tuesday, and 15 on Wednesday. How many more birds were seen on Tuesday than on Monday?

1. Read Tuesday: 17 birds.
2. Read Monday: 12 birds.
3. Subtract: $17 - 12 = 5$.

Answer: 5 more birds on Tuesday.

PRACTICE 5 problems

- 1** Use the line graph. Library Visitors 13 | * | / 10 | * | / 7 | * | / 4 | * +----- Mon Tue Wed Thu Which day had the most visitors?

ANSWER _____

- 2** Use the Library Visitors graph above. How many more visitors came on Tuesday than on Monday?

ANSWER _____

- 3** Use the Library Visitors graph above. How many visitors came in all from Monday through Thursday?

ANSWER _____

- 4** Use the Library Visitors graph above. If the number keeps increasing by the same amount, predict Friday's visitors.

ANSWER _____

- 5** Use the Library Visitors graph above. Write one conclusion about the visitor data.

ANSWER _____

APPLY IT Show your work

- 1** A line graph of skate park visitors shows 18 on Saturday, 21 on Sunday, and 24 on Monday. If the pattern continues, predict Tuesday's visitors.

WORK SPACE

ANSWER _____

- 2** A line graph shows points earned in a game: Round One, 30; Round Two, 26; Round Three, 22. What is the change each round? Predict Round Four.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A line graph shows practice laps: Monday, 7; Tuesday, 11; Wednesday, 16; Thursday, 19. Eli says the laps increase by 4 each day, so Friday will be 23. Is Eli's conclusion supported? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Use the line graph. Library Visitors 13 * / 10 * / 7 * / 4 * +----- Mon Tue Wed Thu Which day had the most visitors?	Thursday, 13 visitors.
2	Use the Library Visitors graph above. How many more visitors came on Tuesday than on Monday?	3 visitors.
3	Use the Library Visitors graph above. How many visitors came in all from Monday through Thursday?	34 visitors.
4	Use the Library Visitors graph above. If the number keeps increasing by the same amount, predict Friday's visitors.	16 visitors.
5	Use the Library Visitors graph above. Write one conclusion about the visitor data.	The number of visitors increased each day.

PART 2 • APPLY IT

- 27 visitors.** The number of visitors rises by 3 each day. Add 3 to 24.
- The score decreases by 4 points each round. Round Four will have 18 points.** Subtract to find that the score drops by 4 each round. Subtract 4 from 22.

CHALLENGE

No. The increases are 4, then 5, then 3, so the data do not increase by 4 each day.

Accept equivalent wording for written conclusions and explanations. Predictions should match the stated repeating pattern and include the correct unit when asked.