

Track the Trend

Turn data into clear line graphs.

GRADE 4 • 4.PS.1.c

4.PS.1.c "Organize and represent a data set using line graphs with a title and labeled axes with whole number increments, with and without the use of technology tools."

NAME _____

DATE _____

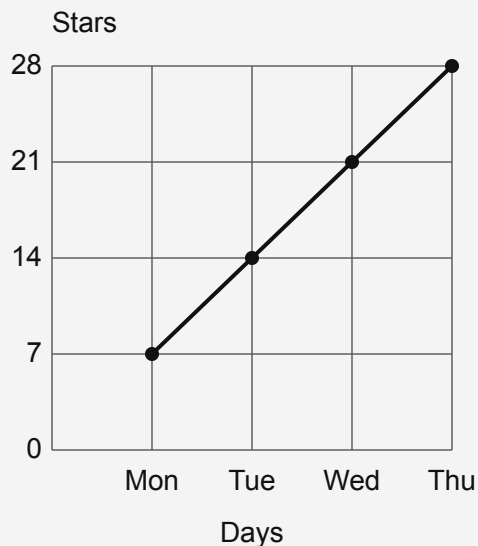
BUILD A LINE GRAPH

Put time or order on the horizontal axis. Put the amounts on the vertical axis. Add a title and use equal whole-number steps on the vertical axis.

WORKED EXAMPLE

Make a line graph for stars seen: Mon 7, Tue 14, Wed 21, Thu 28.

Stars Seen



1. Title the graph "Stars Seen."
2. Label the x-axis Days and the y-axis Stars.
3. Label the y-axis 0, 7, 14, 21, 28.
4. Plot each day, then connect the points.

Answer: Line graph titled "Stars Seen" with points (Mon, 7), (Tue, 14), (Wed, 21), and (Thu, 28).

PRACTICE 5 problems

- 1** A y-axis is labeled 0, 5, 10, 15. What is the increment?

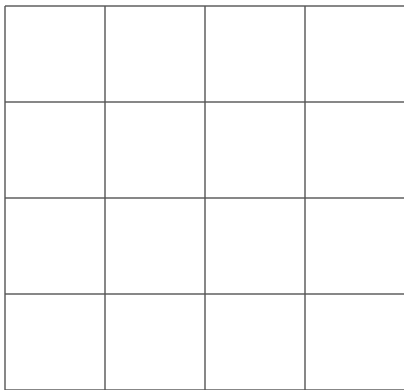
ANSWER _____

- 3** Data show plant heights: Mon 4 cm, Tue 8 cm, Wed 12 cm. Write a graph title and both axis labels.

ANSWER _____

- 5** Make a line graph for game points: Mon 5, Tue 10, Wed 15, Thu 20. Use a y-axis that counts by 5.

Title: _____ Label both axes and the scale.



ANSWER _____

- 2** Put this data in day order: Thu 10, Mon 2, Wed 8, Tue 4.

ANSWER _____

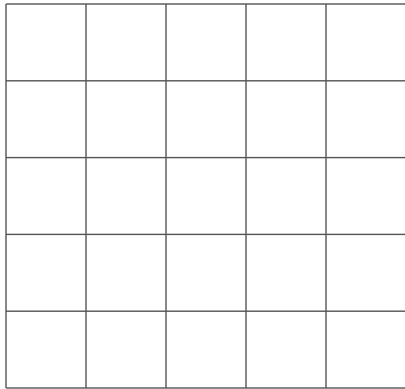
- 4** A point on a line graph is at Thursday and 16. What does the point show?

ANSWER _____

APPLY IT Show your work

- 1** A gamer records levels completed: Mon 2, Tue 4, Wed 6, Thu 8, Fri 10. Make a line graph. Count by 2 on the y-axis.

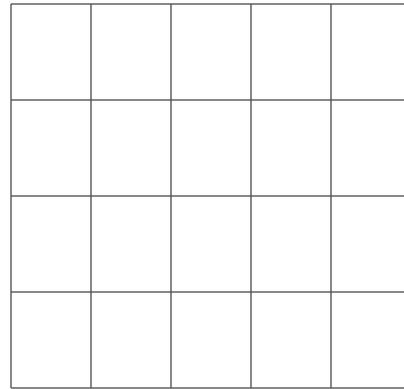
Title: _____ Label both axes and the scale.



ANSWER _____

- 2** Jalen tracks successful free throws: Mon 0, Tue 5, Wed 10, Thu 15, Fri 20. Make a line graph. Count by 5 on the y-axis.

Title: _____ Label both axes and the scale.



ANSWER _____

CHALLENGE One step up

A graph has y-axis labels 0, 5, 10, 15. It shows snack sales of 4, 8, and 12 by putting the points on 5, 10, and 15. Explain the error and give a better y-axis scale.

PRACTICE 1**5****PRACTICE 2****Mon 2, Tue 4, Wed 8, Thu 10****PRACTICE 3**

Title: Plant Heights. x-axis: Days. y-axis: Height (cm).

PRACTICE 4

The amount was 16 on Thursday.

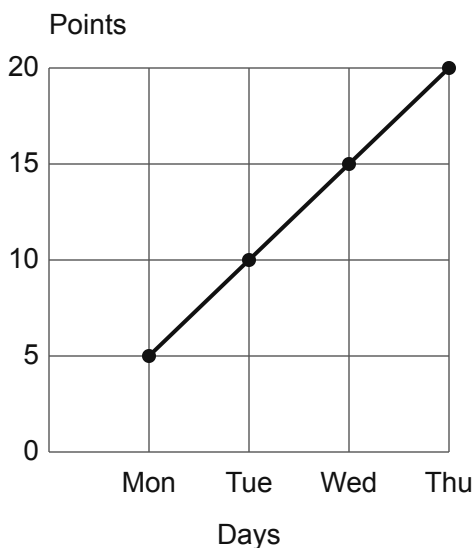
CHALLENGE

The points are in the wrong places because 4, 8, and 12 are not 5, 10, and 15. Use y-axis labels 0, 4, 8, 12, with an increment of 4.

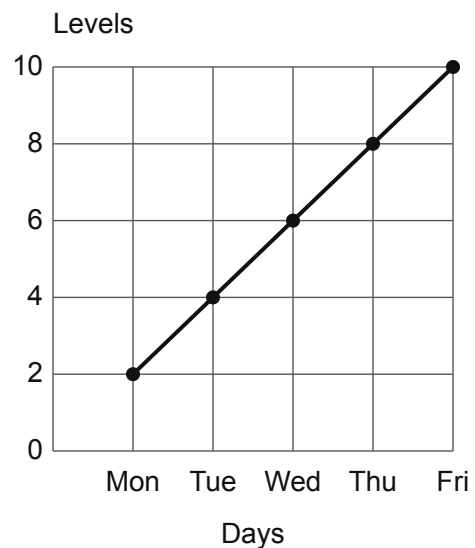
Accept sensible equivalent titles and axis labels. Accept any equal whole-number scale that includes all data values and places each point correctly.

PRACTICE 5

Line graph titled "Game Points" with x-axis Days, y-axis Points, y-axis labels 0, 5, 10, 15, 20, and points (Mon, 5), (Tue, 10), (Wed, 15), (Thu, 20).

Game Points**APPLY IT 1**

Line graph titled "Levels Completed" with x-axis Days, y-axis Levels, y-axis labels 0, 2, 4, 6, 8, 10, and points (Mon, 2), (Tue, 4), (Wed, 6), (Thu, 8), (Fri, 10). Use days in order on the x-axis. The y-axis counts by 2 because each amount is a multiple of 2.

Levels Completed

APPLY IT 2

Line graph titled "Successful Free Throws" with x-axis Days, y-axis Free Throws, y-axis labels 0, 5, 10, 15, 20, and points (Mon, 0), (Tue, 5), (Wed, 10), (Thu, 15), (Fri, 20). Use the equal steps 0, 5, 10, 15, and 20 on the y-axis. Plot one point for each day and connect the points.

Successful Free Throws