

2-1 Reteaching

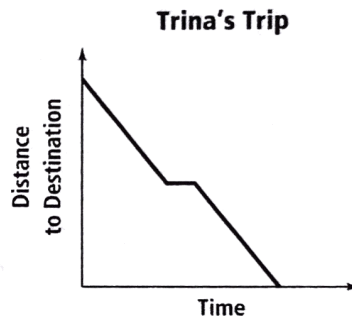
Using Graphs to Relate Two Quantities

An important life skill is to be able to read a graph. When looking at a graph, you should check the title, the labels on the axes, and the general shape of the graph.

Problem

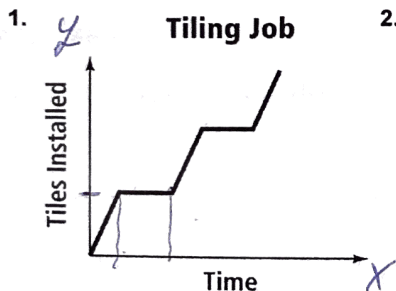
What information can you determine from the graph?

- The title tells you that the graph describes Trina's trip.
- The axes tell you that the graph relates the variable of time to the variable of distance to the destination.
- In general, the more time that has elapsed, the closer Trina gets to her destination. In the middle of the trip, the distance does not change, showing she stops for a while.

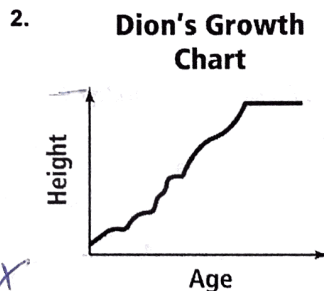


Exercises

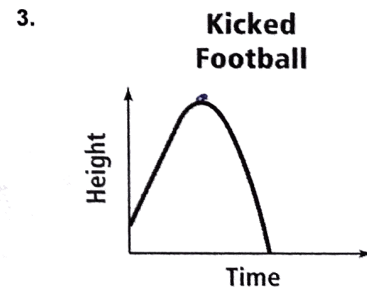
What are the variables in each graph? Describe how the variables are related at various points on the graph.



Time and total tiles installed.



Age and Height



Time and Height.

2-1 Reteaching (continued)

Using Graphs to Relate Two Quantities

A graph can show the relationship described in a table.

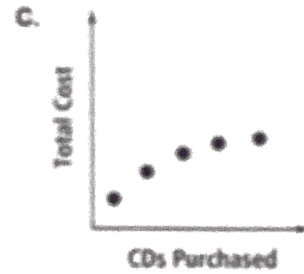
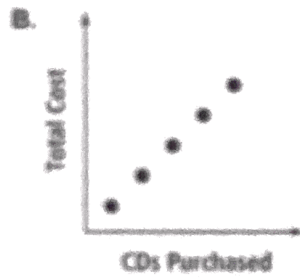
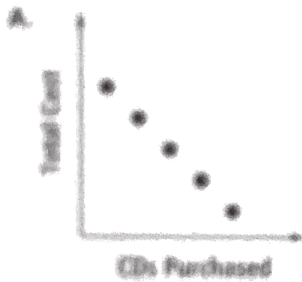
Problem

Which graph shown below represents the information in the table at the right?

Notice that for each additional CD purchased, the total cost increases by \$15. The points on the graph should be in a straight line that goes up from left to right. The graph that shows this trend is Graph B.

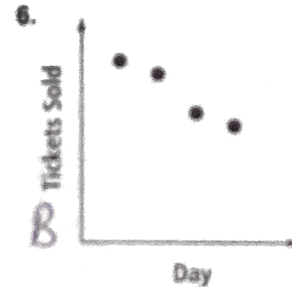
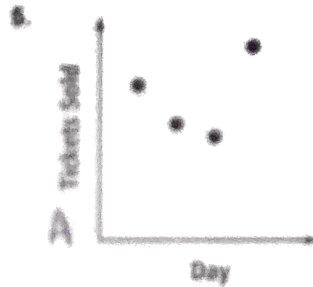
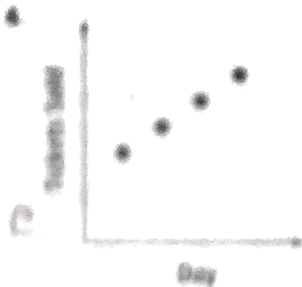
CDs Purchased	Total Cost
1	\$15
2	\$30
3	\$45
4	\$60
5	\$75

Diagram showing the relationship between the number of CDs purchased and the total cost. The table shows that for each additional CD purchased, the total cost increases by \$15. The graph shows a straight line passing through the points (1, 15), (2, 30), (3, 45), (4, 60), and (5, 75). The x-axis is labeled 'CDs Purchased' and the y-axis is labeled 'Total Cost'. The line has a positive slope of 15.



Exercises

Match each graph with its related table. Explain your answers.



A.

Day	Tickets Sold
1	60
2	45
3	40
4	75

B.

Day	Tickets Sold
1	70
2	65
3	50
4	45

C.

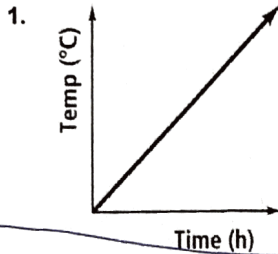
Day	Tickets Sold
1	35
2	45
3	55
4	65

2-1 Practice

Form K

Using Graphs to Relate Two Quantities

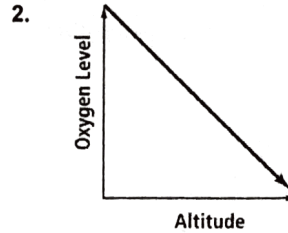
What are the variables in each graph? Describe how the variables are related at various points on the graph.



Time and Temperature.

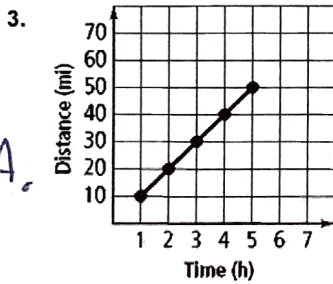
As time increase the temperature increases.

Match each graph with its related table.

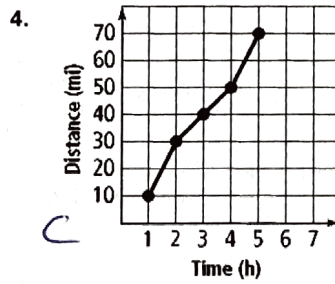


Altitude and oxygen level.

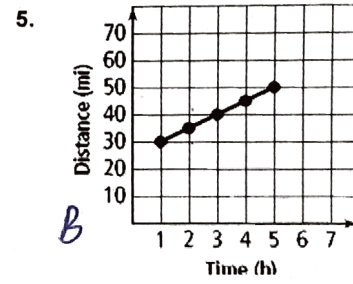
As the Altitude increases the oxygen level decreases.



A.



C



B

A.

Time (h)	Distance (mi)
1	10
2	20
3	30
4	40
5	50

B.

Time (h)	Distance (mi)
1	30
2	35
3	40
4	45
5	50

C.

Time (h)	Distance (mi)
1	10
2	30
3	40
4	50
5	70

2-1 Practice (continued)

Form K

Using Graphs to Relate Two Quantities

Sketch a graph to represent each situation.

6. During a trip, your speed increases during the first hour and decreases over the next 2 hours.



7. The average temperature steadily decreases over the course of the football season.

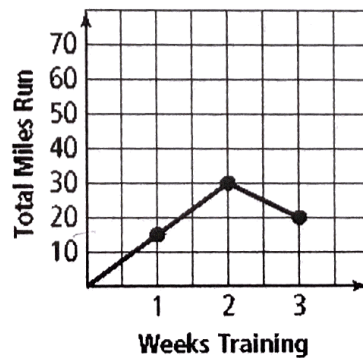


8. The average test score of the class increased throughout the semester until it decreased slightly on the last test.



9. **Error Analysis** During the first 2 weeks of training, Shelly ran 15 miles per week. Then, she increased to 20 miles per week. Describe and correct the error in sketching a graph to represent the relationship between the weeks and the total number of miles she has run.

Week	Miles
0	0
1	15
2	30
3	50
4	70



The line should continue increasing. The third point should be at (3,50).