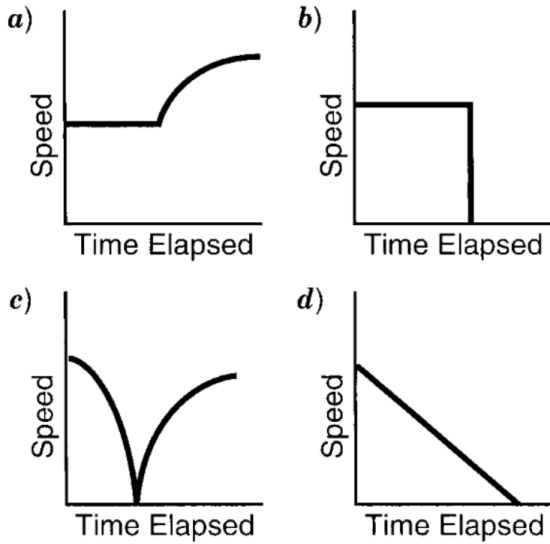A wagon moves along then crashes into a wall and stops.

a)

Speed | Time Elapsed

b)

Speed | Time Elapsed

c)

Speed | Time Elapsed

d)

Speed | Time Elapsed

We climbed a hill and then sledded down it.

a)

Speed | Time Elapsed

b)

Speed | Time Elapsed

c)

Speed | Time Elapsed

d)

Speed | Time Elapsed
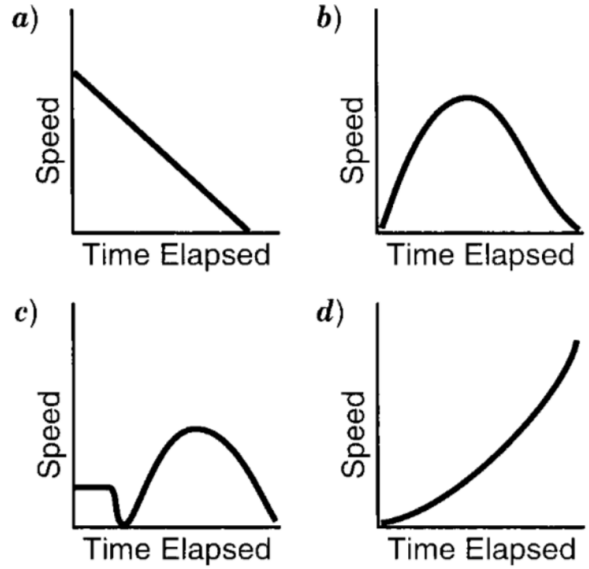
You are babysitting and earn $4 an hour. Which of the following graphs shows how the amount you earn is related to the number of hours you work?
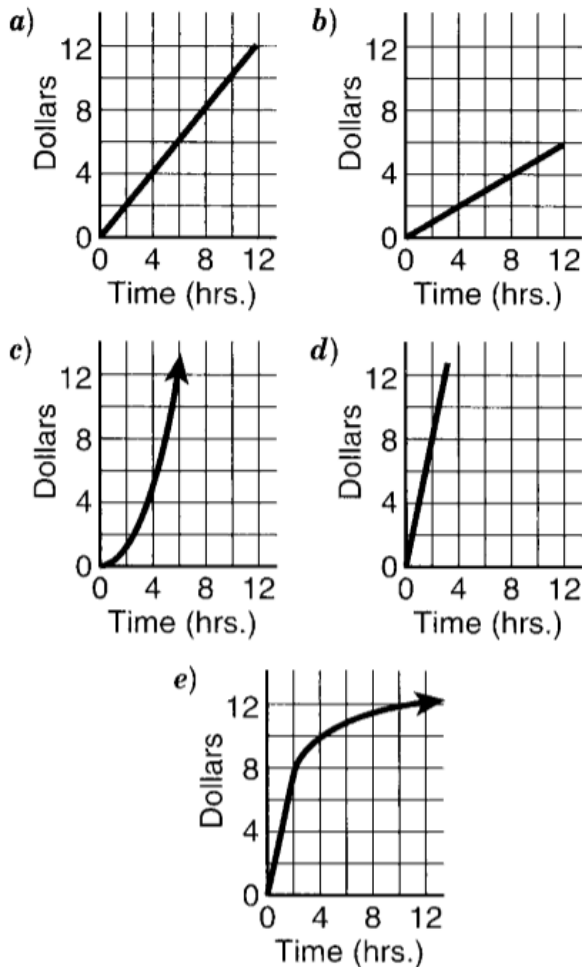
a)

Dollars | 12 8 4 0 | 0 4 8 12 | Time (hrs.)

b)

Dollars | 12 8 4 0 | 0 4 8 12 | Time (hrs.)

c)

Dollars | 12 8 4 0 | 0 4 8 12 | Time (hrs.)

d)

Dollars | 12 8 4 0 | 0 4 8 12 | Time (hrs.)

e)

Dollars | 12 8 4 0 | 0 4 8 12 | Time (hrs.)

Kendra is speeding along the highway and is stopped by a police offficer. The officer gives her a ticket and then she continues on her way. Graph time on the horizontal axis and her speed on the vertical axis.

Speed | Time

S | T

Speed | Time

Speed | Time
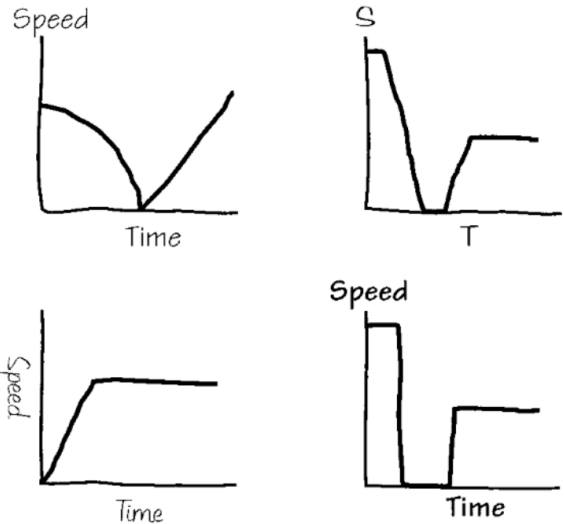
Carlos lives in a large city and travels to school on a local bus that stops at every block to let passengers on and off.

a) Graph time on the horizontal axis and the speed of the bus on the vertical axis.

b) Graph time on the horizontal axis and the distance Carlos has traveled on the vertical axis.
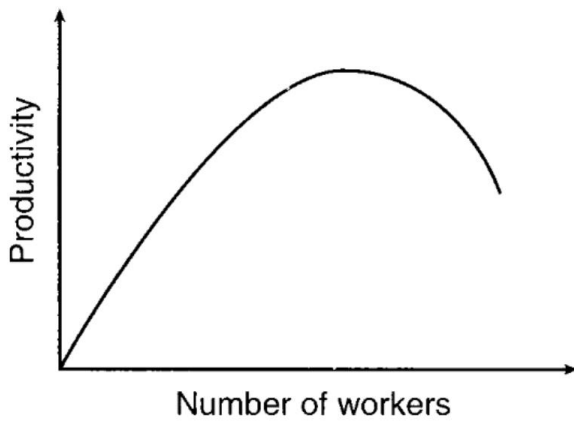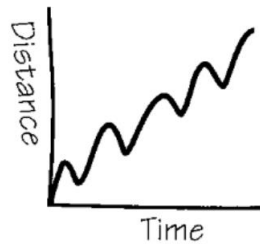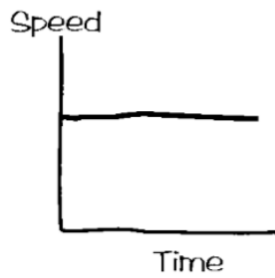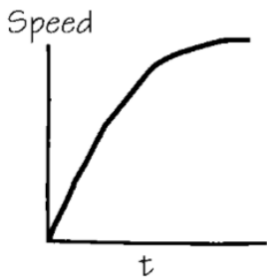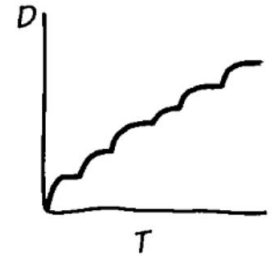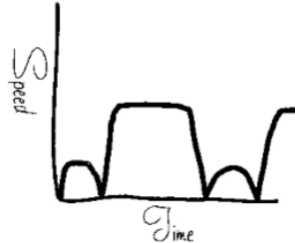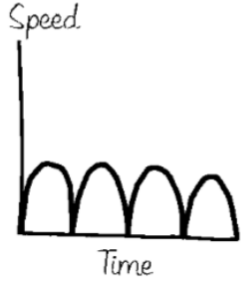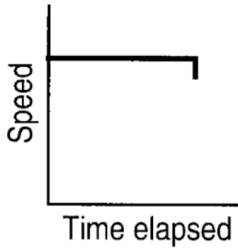

Describe what Figure 1.5 tells you about the assembly line whose productivity is represented as a function of the number of workers on that assembly line.
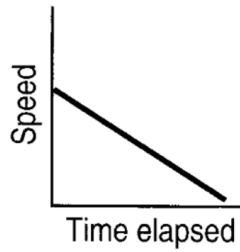
Indicate which graph matches the statement.

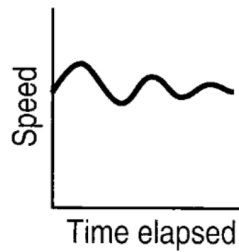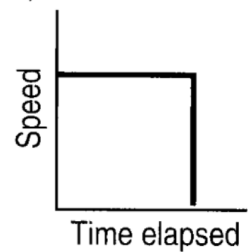1. A train pulls into a station and lets off its passengers.

a)

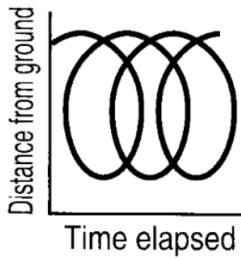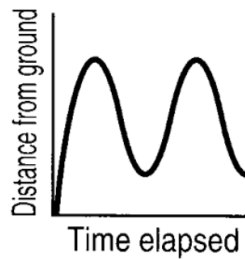Speed | Time elapsed

b)

Speed | Time elapsed

c)

Speed | Time elapsed

d)

Speed | Time elapsed

2. A man takes a ride on a ferris wheel.

a)

Distance from ground | Time elapsed

b)

Distance from ground | Time elapsed

c)

Distance from ground | Time elapsed

d)

Distance from ground | Time elapsed
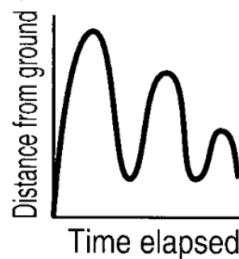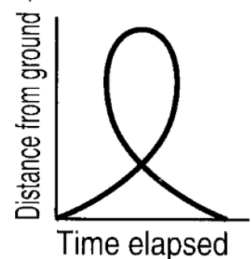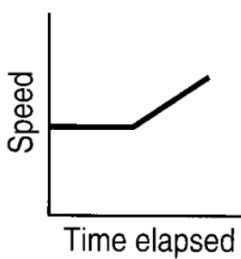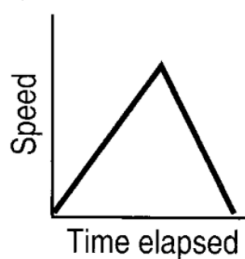
3. A woman climbs a hill at a steady pace and then starts to run down one side.

a)

Speed | Time elapsed

b)

Speed | Time elapsed

c)

Speed | Time elapsed

d)
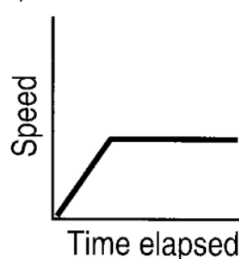
Speed | Time elapsed
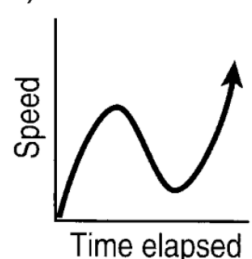
4. A child swings on a swing.

a)

Distance from ground | Time elapsed

b)

Distance from ground | Time elapsed

c)

Distance from ground | Time elapsed

d)
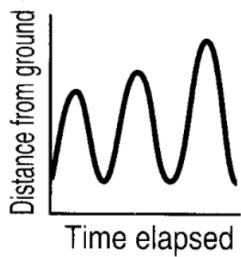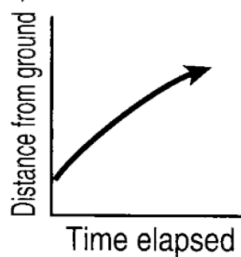
Distance from ground | Time elapsed
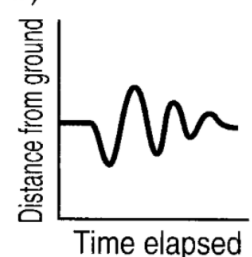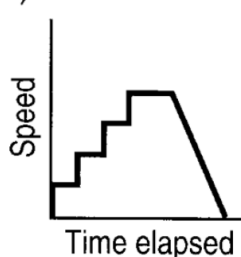
5. A child climbs up a slide and then slides down.

a)

Speed | Time elapsed

b)

Speed | Time elapsed

c)

Speed | Time elapsed

d)
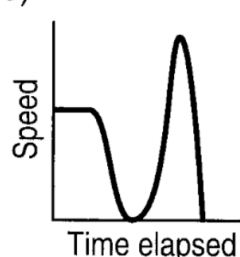
Speed | Time elapsed

1. Sandra starts out with $43 and feeds quarters into a slot machine. Which graph shows the amount of money left after x tries, assuming that she never wins?

a)

Number of Tries

b)

Number of Tries

c)

Number of Tries

d)

Number of Tries

e)

Number of Tries
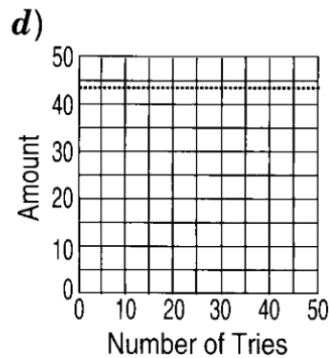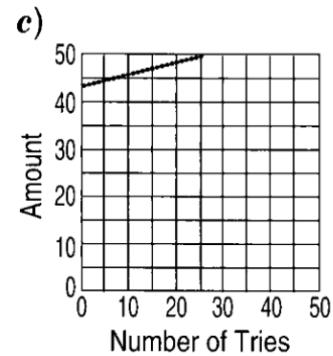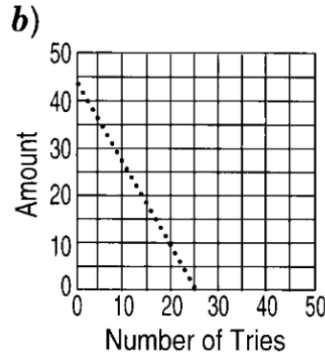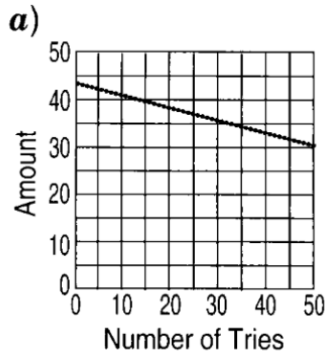
2. Richard types for three minutes at the rate of thirty-five words per minute. He takes a two-minute break and then types for three more minutes at the rate of twenty words per minute. The graphs below show time on the horizontal axis and the number of words typed on the vertical axis. Which graph represents Richard's time at the typewriter?
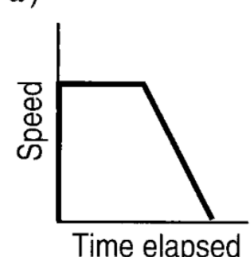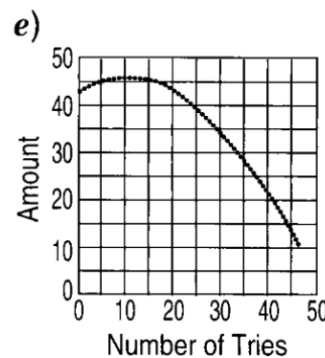
a)

Time (min.)

b)

Time (min.)

c)

Time (min.)

d)

Time (min.)
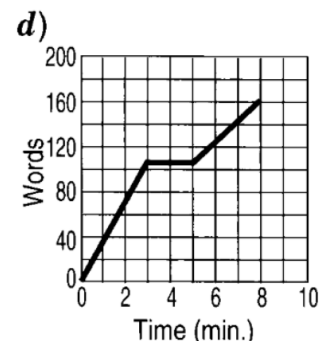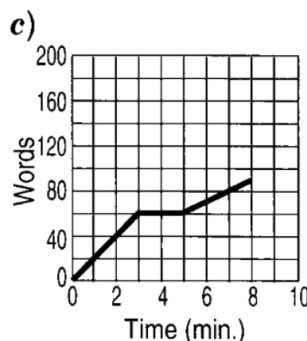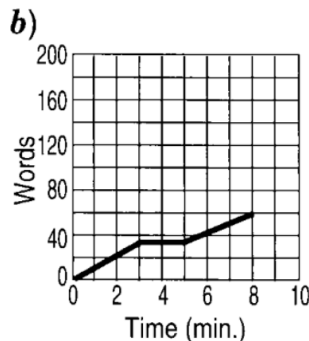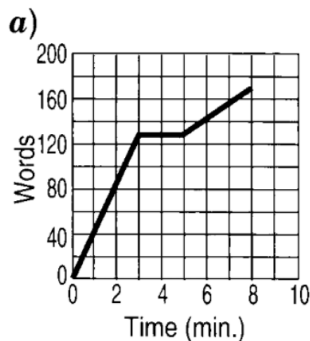
Drawing Graphs

1. Sara walks from her home to the store. Halfway to the store, she realizes that she forgot to bring money, so she turns around, returns home, gets her money, and then walks all the way to the store. Graph time on the horizontal axis and distance from home on the vertical axis.

2. Rashid is jumping on a trampoline. Graph time on the horizontal axis and his distance off the ground on the vertical axis.

3. Kendra is speeding along the highway and is stopped by a police officer. The officer gives her a ticket and then she continues on her way. Graph time on the horizontal axis and her speed on the vertical axis.

4. Carlos lives in a large city and travels to school on a local bus that stops at every block to let passengers on and off.

   a) Graph time on the horizontal axis and the speed of the bus on the vertical axis.
   b) Graph time on the horizontal axis and the distance Carlos has traveled on the vertical axis.

Interpreting Graphs

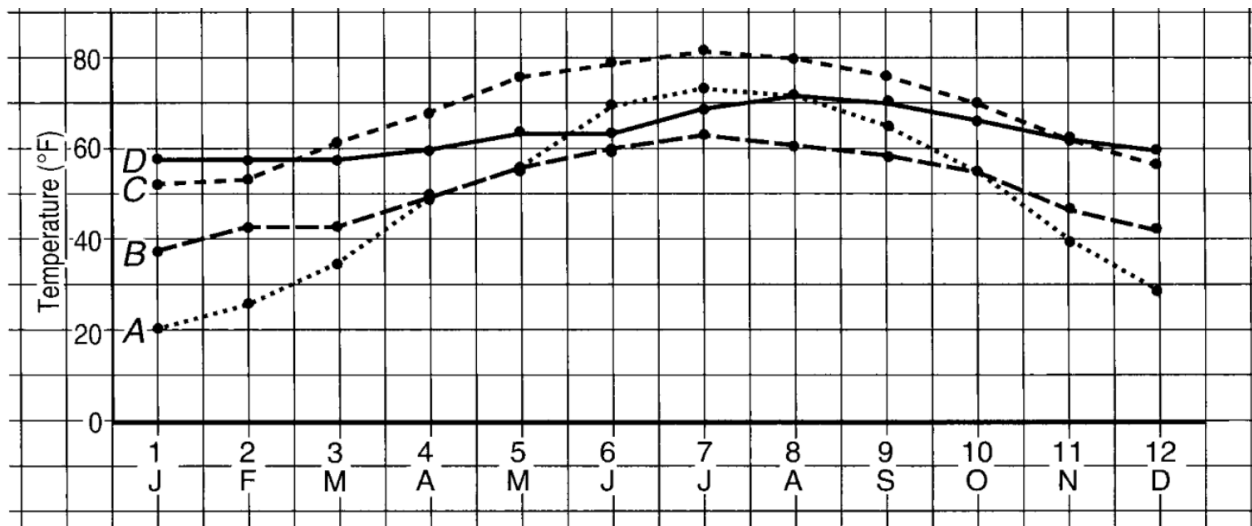The Mount Southington Ski area claims its lift travels at 400 feet per minute and is 2000 feet long. The graphs that follow record in two ways the trip of one skier up the mountain on the lift and then skiing down the mountain. One graph represents the distance from the bottom of the mountain as a function of time, and the other represents the speed of the skier as a function of time.
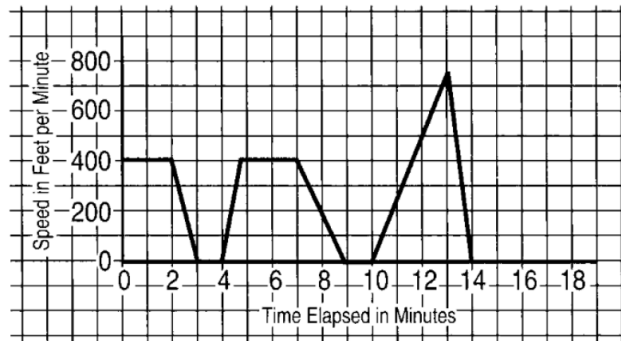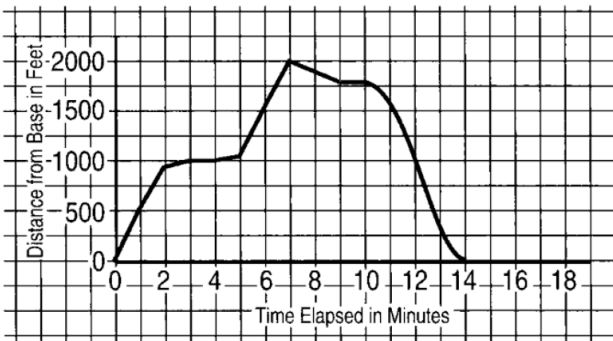
1. Did the chairlift stop before the skier reached the top of the mountain? Explain your answer.

2. Is it possible to tell from the distance graph that the speed has dropped to 0? Explain your answer.

3. What is the top speed of the chairlift in miles per hour?

4. What is the top speed of the skier in miles per hour?

5. Notice that between 9 and 10 minutes the speed is 0. What do you think happened?

6. Label five points A, B, C, D, and E on each graph, matching the distance and speed. Explain why these points match and what was happening at each time.

In the graph below you will find the average monthly temperatures for Jacksonville, Florida; Seattle, Washington; San Diego, California; and Chicago, Illinois. These temperatures are based on records for the thirty-year period from 1951 to 1980, inclusive. On the basis of what you know about the climate of each state, try to guess which state is associated with each graph.

7. State A is _____.

8. State B is _____.

9. State C is _____.

10. State D is _____.