Name _____ Date _____ Class _____

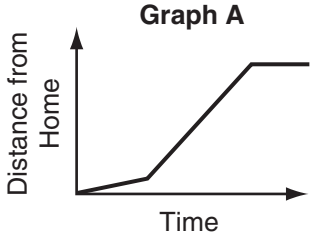
LESSON 4-1

Practice C

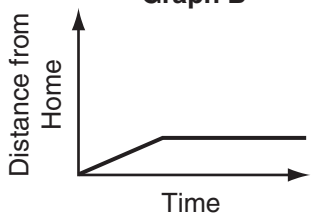
Graphing Relationships

Choose the graph that best represents each situation.

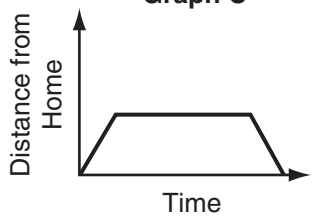
Graph A



Graph B



Graph C

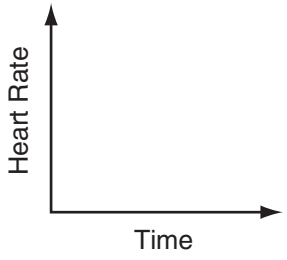


1. A person leaves home, drives through town, then on the highway, and finally stops at a rest area. _____

2. A person leaves home, drives to the other end of town and buys groceries, then returns home. _____

3. A person walks to a friend's house where she stays overnight. _____

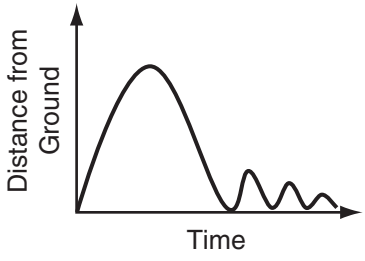
4. Franco's heart rate increases steadily as he does some warm-up exercises. He then maintains a steady heart rate for several minutes as he jogs. Finally, his heart rate slows down to normal with his cool-down walk. Sketch a graph to show Franco's heart rate over time as he exercises. Tell whether the graph is continuous or discrete.



_____

Write a possible situation for each graph.

5.



_____

_____

_____

_____

6.

_____

_____

_____

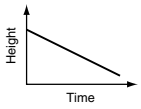
_____

LESSON 4-1

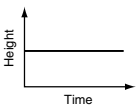
Practice A

Graphing Relationships

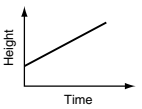
For each, write if the height is *rising*, *falling*, or *staying the same*.

1. 

falling

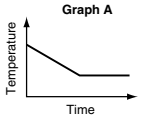
2. 

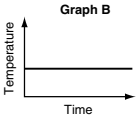
staying the same

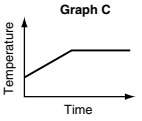
3. 

rising

Choose the graph that best represents each situation.







4. The temperature of the water in a glass remained constant.

Graph B

5. The temperature of the water in a glass rose steadily for several hours until it reached room temperature, then remained constant.

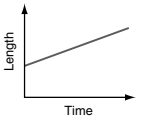
Graph C

6. The temperature of the water in a glass cooled down steadily with the addition of ice, then remained constant when all the ice had melted.

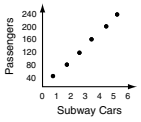
Graph A

7. Don's hair grows steadily longer between haircuts. Sketch a graph to show the length of Don's hair between two haircuts. Is the graph continuous or discrete?

continuous



Write a possible situation for the graph.

8. 

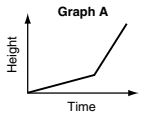
Possible answer: A subway train has up to 6 cars. Each car can hold 40 passengers.

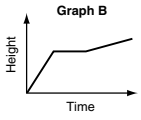
LESSON 4-1

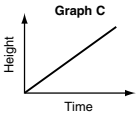
Practice B

Graphing Relationships

Choose the graph that best represents each situation.







1. A tomato plant grows taller at a steady pace.

Graph C

2. A tomato plant grows quickly at first, remains a constant height during a dry spell, then grows at a steady pace.

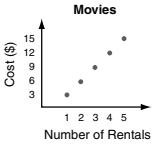
Graph B

3. A tomato plant grows at a slow pace, then grows rapidly with more sun and water.

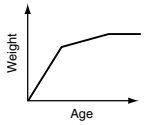
Graph A

4. Lora has $15 to spend on movie rentals for the week. Each rental costs $3. Sketch a graph to show how much money she might spend on movies in a week. Tell whether the graph is continuous or discrete.

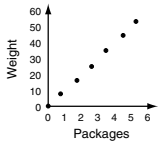
discrete



Write a possible situation for each graph.

5. 

Possible answer: A kitten gains weight quickly after birth, then more slowly, until it reaches its maximum weight.

6. 

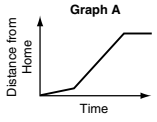
Possible answer: Each package weighs 10 pounds. The box can hold up to 60 pounds.

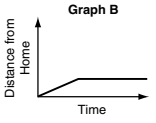
LESSON 4-1

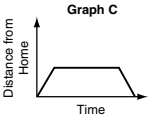
Practice C

Graphing Relationships

Choose the graph that best represents each situation.







1. A person leaves home, drives through town, then on the highway, and finally stops at a rest area.

Graph A

2. A person leaves home, drives to the other end of town and buys groceries, then returns home.

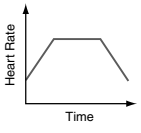
Graph C

3. A person walks to a friend's house where she stays overnight.

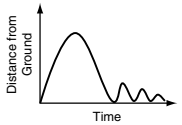
Graph B

4. Franco's heart rate increases steadily as he does some warm-up exercises. He then maintains a steady heart rate for several minutes as he jogs. Finally, his heart rate slows down to normal with his cool-down walk. Sketch a graph to show Franco's heart rate over time as he exercises. Tell whether the graph is continuous or discrete.

continuous



Write a possible situation for each graph.

5. 

Possible answer: An object is thrown up in the air; drops to the ground, and bounces 3 times.

6. 

Possible answer: With each additional person in the group, the cost per person for a group trip drops.

LESSON 4-1

Reteach

Graphing Relationships

Graphs are a way to turn words into pictures. Be sure to read the graphs from left to right.

increasing

Other descriptions:
rose
gained
grew

decreasing

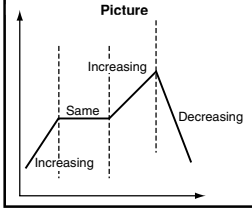
Other descriptions:
fell
lessened
diminished

stays the same

Other descriptions:
constant
steady
continuous

You can divide the graph into sections every time the graph changes directions. Then label each section.

Picture

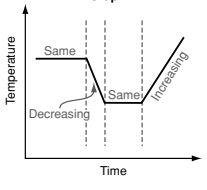


Words

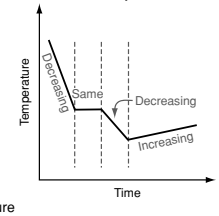
This graph increases, then stays constant, increases again, and finally decreases sharply.

Divide each graph into sections where the graph changes directions. Then label the sections as *increasing*, *decreasing*, or *same*.

1. **Graph A**



2. **Graph B**



3. Which graph above shows that the air temperature fell steadily, leveled off, fell again, and then increased slightly?

Graph B