## GRAPHING RELATIONSHIPS

Identify the graph that matches the statement.

1. A bus frequently stops to pick up passengers.



2. Annual income is a function of age.



GRAPH C

3. For a certain time Lucy jogs up a hill at a steady speed. Then she runs down the hill and picks up her speed.


TIME

GRAPH B


TIME

GRAPH C


TIME
4. On the way to school, Jordan jogs quickly up a hill, takes a break, and then walks slowly down a hill. Which graph best represents Jordan's distance from home during her walk to school?

GRAPH A


GRAPH B


GRAPH C


GRAPH D


Sketch a reasonable graph for the situation described (be sure to label your axes), identify the dependent and independent variables, and complete the statement.
5. The amount of force, $\boldsymbol{f}$, used to hit your thumb with a hammer, impacts the amount of pain, $\boldsymbol{p}$, that you experience.

Independent Variable: $\qquad$
Dependent Variable: $\qquad$
$\qquad$ is a function of $\qquad$ .
6. The speed of a radio-controlled car, $\boldsymbol{s}$, varies over time, $\boldsymbol{t}$. Timmy is operating a radiocontrolled car. After turning the car on, its speed increases until it crashes against a wall. Independent Variable: $\qquad$
Dependent Variable: $\qquad$
$\qquad$ is a function of $\qquad$ .

Match each description to its most appropriate graph.

| 7. | In January you enter a cold house and <br> turn up the thermostat to $68^{\circ}$. |
| :--- | :--- |
| 8. | You put a cup of water in the <br> microwave and heat it for one minute. |
| 9. | You put ice cubes in your fruit punch <br> and then drink it slowly. |
| 10. | In August you enter a hot house and <br> turn on the air conditioner. |

Review.

GRAPH 1


Time
GRAPH 3


Time

GRAPH 2


Time
GRAPH 4


Time
11. If $y=\frac{-4}{5} x-2$, what is the value of $x$ when $y=-9$ ?

