

Name \_\_\_\_\_



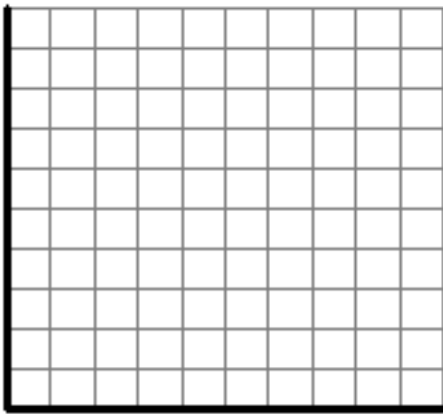
## To Call or Not To Call

A cell phone company requires customers to pay a set fee for every call, plus an additional charge for every minute used. The cost information is summarized in the chart.

Number of minutes	$x$	1	2	3	4	5	6
Cost of the call (\$)	$y$	0.32	0.44	0.56	0.68	0.80	0.92

Use the data set above to answer the following questions.

1. Graph this relationship by labeling each axis and plotting points.



2. Determine the equation that relates the cost of the call ( $y$ ) to the number of minutes ( $x$ ).

3. How much would a customer expect to pay for a 15-minute call?

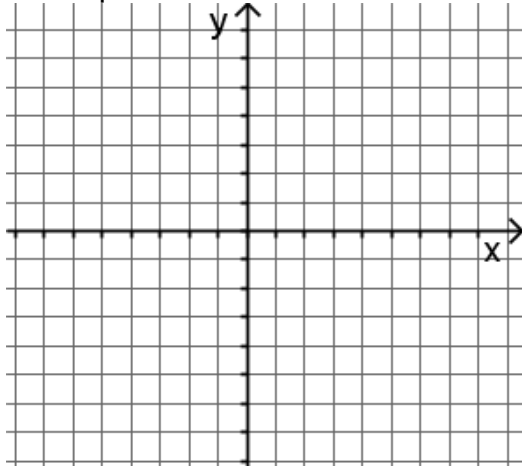
4. If a customer is charged \$1.52 for a call, how many minutes did she talk?

# What's My Function?

Answer the questions about the given functions.

1. A function contains only these five points:  $(-2,3)$ ,  $(-1,1)$ ,  $(0,-1)$ ,  $(1,-3)$  and  $(2,-5)$ .

A. Graph the function.



B. Is this function continuous or discrete?

C. Is this function increasing or decreasing?

D. Identify the function's domain and range.

E. What equation relates the  $x$ - and  $y$ -values in this function?

F. How does the domain of the representative equation compare with that of the function itself?

2. A phone company charges \$29.99 per month to use their services and network. In addition, they charge an extra fee of 12 cents per minute for all calls.

A. What equation relates the number of minutes ( $x$ ) with the month's charge ( $y$ ) with this telephone company?

B. Is this function increasing or decreasing?

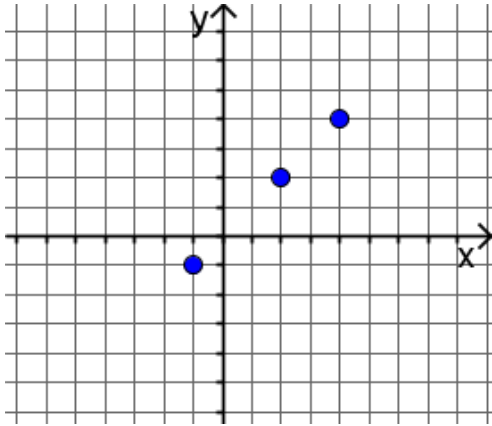
C. Would you consider the function continuous or discrete?

D. What are the domain and range of the problem situation?

E. How do the domain and range of the problem situation differ from that of the representative equation?

## What's My Function?

3. Consider the function graphed below.



- A. Is this function continuous or discrete?
- B. Is this function increasing or decreasing?
- C. Identify the function's domain and range.
- D. What equation relates the  $x$ - and  $y$ -values in this function?

- E. How does the domain of the representative equation compare with that of the function itself?

4. Charlie rented a boat from Alex's Paddle Boat Rental Shop for \$15 and is deciding how long to keep it. The rental company charges \$2.50 per hour to rent a paddle boat.

A. What equation relates the number of hours ( $x$ ) with the total charge ( $y$ ) with this rental company?

B. Is this function increasing or decreasing?

C. Would you consider the function continuous or discrete?

D. What are the domain and range of the problem situation?

E. How do the domain and range of the problem situation differ from that of the representative equation?