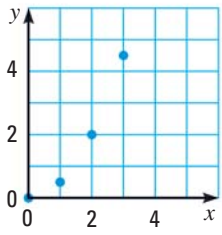
14. CHALLENGE The graph represents a function.

a. Write a rule for the function.

b. Find the value of y so that $(1.5, y)$ is on the graph of the function.



PROBLEM SOLVING

EXAMPLE 2 on p. 44 for Exs. 15–17

15. ADVERTISING The table shows the cost C (in millions of dollars) of a 30 second Super Bowl ad on TV as a function of the time t (in years) since 1997. Graph the function.

Years since 1997, t	0	1	2	3	4	5	6	7
Cost (millions of dollars), C	1.2	1.3	1.6	2.1	2.1	1.9	2.1	2.3

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16. CONGRESS The table shows the number r of U.S. representatives for Texas as a function of the time t (in years) since 1930. Graph the function.

Years since 1930, t	0	10	20	30	40	50	60	70
Number of representatives, r	21	21	22	23	24	27	30	32

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17. ELECTIONS The table shows the number v of voters in U.S. presidential elections as a function of the time t (in years) since 1984. First copy and complete the table. Round to the nearest million. Then graph the function represented by the first and third columns.

Years since 1984	Voters	Voters (millions)
0	92,652,680	?
4	91,594,693	?
8	104,405,155	?
12	96,456,345	?
16	105,586,274	?

EXAMPLE 4 on p. 45 for Exs. 18–19

18. WRITING The graph shows the number of hours of daylight in Houston, Texas, on the fifteenth day of the month, with 1 representing January, and so on. Identify the independent variable and the dependent variable. *Describe* how the number of hours of daylight changes over a year.