

**GRAPHING FUNCTIONS** Graph the function with the given domain. Then identify the range of the function.

24.  $y = -x + 1$ ; domain:  $-2, -1, 0, 1, 2$

25.  $y = 2x - 5$ ; domain:  $-2, -1, 0, 1, 2$

26.  $y = -\frac{2}{3}x - 1$ ; domain:  $-6, -3, 0, 3, 6$

27.  $y = \frac{1}{2}x + 1$ ; domain:  $-6, -4, -2, 0, 2$

28. **GEOMETRY** Plot the points  $W(-4, -2)$ ,  $X(-4, 4)$ ,  $Y(4, 4)$ , and  $Z(4, -2)$  in a coordinate plane. Connect the points in order. Connect point  $Z$  to point  $W$ . Identify the resulting figure. Find its perimeter and area.

**REASONING** Without plotting the point, tell whether it is in Quadrant I, II, III, or IV. Explain your reasoning.

29.  $(4, -11)$

30.  $(40, -40)$

31.  $(-18, 15)$

32.  $(-32, -22)$

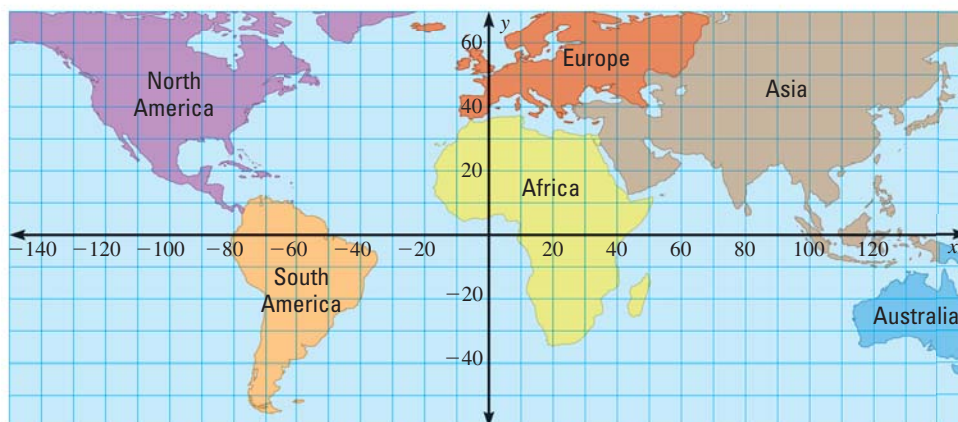
33. **WRITING** Explain how can you tell by looking at the coordinates of a point whether the point is on the  $x$ -axis or on the  $y$ -axis.

34. **REASONING** Plot the point  $J(-4, 3)$  in a coordinate plane. Plot three additional points in the same coordinate plane so that each of the four points lies in a different quadrant and the figure formed by connecting the points is a square. Explain how you located the points.

35. **CHALLENGE** Suppose the point  $(a, b)$  lies in Quadrant IV. Describe the location of the following points:  $(b, a)$ ,  $(2a, -2b)$ , and  $(-b, -a)$ . Explain your reasoning.

## PROBLEM SOLVING

36. **ASTRONAUT PHOTOGRAPHY** Astronauts use a coordinate system to describe the locations of objects they photograph from space. The  $x$ -axis is the equator,  $0^\circ$  latitude. The  $y$ -axis is the prime meridian,  $0^\circ$  longitude. The names and coordinates of some lakes photographed from space are given. Use the map to determine on which continent each lake is located.



- a. Lake Kulundinskoye:  $(80, 53)$       b. Lake Champlain:  $(-73, 45)$   
 c. Lake Van:  $(43, 39)$                       d. Lake Viedma:  $(-73, -50)$   
 e. Lake Saint Clair:  $(-83, 43)$               f. Starnberger Lake:  $(12, 48)$

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