

## Indicators

Objective:

5.01 Develop an understanding of function.

b) Identify relations and functions as linear or nonlinear.

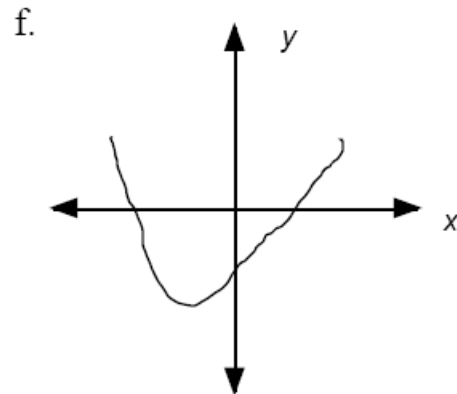
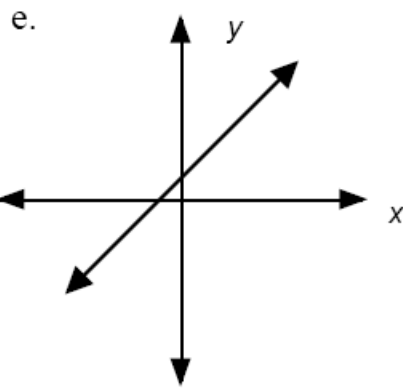
### Vocabulary and Resources

slope (rate of change)  
y-intercept

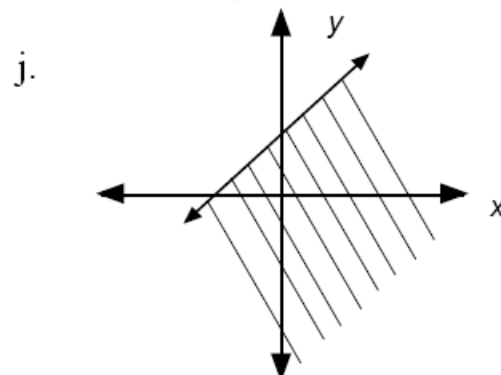
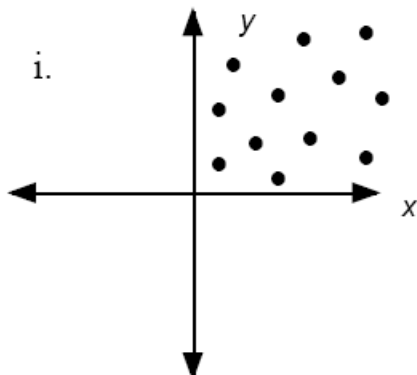
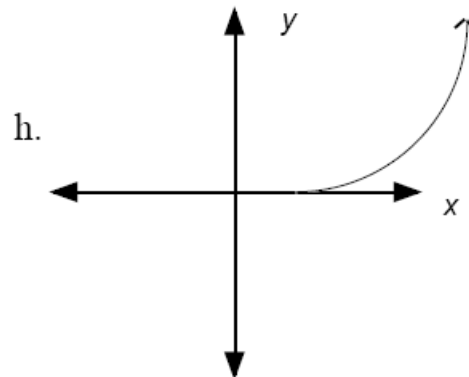
x-intercept  
vertical line test

A. Identify each of the following as linear or nonlinear.

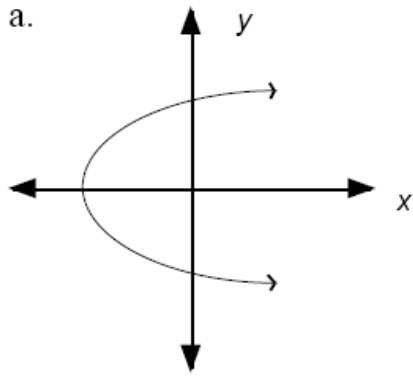
a.  $y = 3x + 4$    b.  $y = x^2 + 1$    c.  $y = -5$    d.  $x + y \leq 17$



g.  $y = \frac{1}{x+2}$

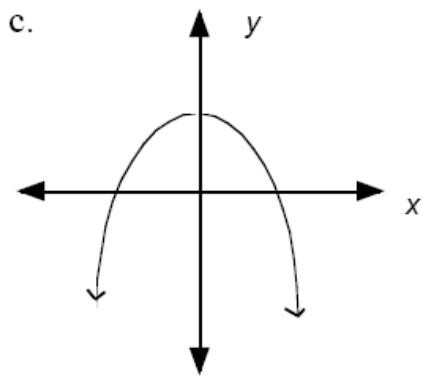


**B.** Determine which of these relations are functions. Explain your reasoning.



b. 

$x$	$y$
16	4
16	-4
36	6
36	-6



d.  $\{(0, 2), (1, 3), (2, 5), (3, 6)\}$

