

1.  $\{(1, 3), (2, 5), (3, 5), (4, 3)\}$   
  
 Yes, Function

2.  $\{(2, 4), (1, 3), (0, 2), (1, 1)\}$   
  
 Not a function (1)

3.  $\{(-1, 0), (1, 0), (0, -1), (-1, 1)\}$   
  
 Not a function (-1)

4.  $\{(4, 1), (3, 2), (2, 3), (1, 4)\}$   
  
 Yes, Function

5.  $\{(a, b), (b, a)\}$   
  
 Yes, Function

6.  $\{(a, a+1), (a, a-1)\}$   
  
 Not a function (a)

7.   
 Not a function (0)

8.   
 Yes, Function

9.   
 Yes, Function

10.   
 Not a function (3)

List the ordered pairs in the relation pictured in each graph. Is the relation a function? If not, explain why.

11.   
 Yes, Function

12.   
 Not a function

13.   
 Not a function

14.   
 Yes, Function

15.   
 Not a function  
 D:  $[-2, 2]$   
 R:  $[-4, 4]$

16.   
 Yes, Function  
 D:  $[-3, 3]$   
 R:  $[-2, 1]$

17.   
 Yes, Function  
 D:  $(-\infty, \infty)$   
 R:  $[-2, 2]$

18.   
 Not a function  
 D:  $[-3, 3]$   
 R:  $(-\infty, \infty)$

1.  $\{(1, 2), (2, 0), (1, 1)\}$   
  
 Not a function (1)

2.  $\{(-1, 2), (0, 1), (1, 2)\}$   
  
 Yes, Function

3.  $\{(-2, 1), (-1, 2), (0, -1), (-1, -2)\}$   
  
 Yes, Function

4.  $\{(2, 1), (1, -1), (0, 2), (2, 0)\}$   
  
 Not a function (2)

5.  $\{(-3, 2), (3, -2), (-2, -1), (2, -1)\}$   
  
 Not a function (3)

6.  $\{(1, 2), (2, -1), (-1, 1), (1, -1), (0, 1)\}$   
  
 Not a function (1)

3.  $\phi(x) = 3x - 5$   
 2.  $\phi: x \rightarrow 3x - 5; D = \{0, 1, 2, 3\}$   
  
 4.  $f: x \rightarrow 1 - x^2; D = \{-1, 0, 1\}$   
  
 6.  $h: x \rightarrow 4x - x^2; D = \{-1, -2, 0\}$   
  
 8.  $k: t \rightarrow t^2 + t - 2; D = \{-2, -1, 0, 1\}$   
  
 10.  $H: z \rightarrow z^2 - z^3; D = \{-1, 0, 1, 2\}$   
  
 12.  $r: t \rightarrow |1 - t|; D = \{-2, -1, 0, 1, 2\}$