

1) Which set of ordered pairs is **not** a function?

(1)  $\{(0,0), (1,1), (2,2), (3,3)\}$

(2)  $\{(1,2), (3,4), (4,5), (5,6)\}$

(3)  $\{(4,1), (5,1), (6,1), (7,1)\}$

(4)  $\{(3,1), (2,1), (1,2), (3,2)\}$

2) Which relation represents a function?

(1)  $\{(0,3), (2,4), (0,6)\}$

(2)  $\{(-7,5), (-7,1), (-10,3), (-4,3)\}$

(3)  $\{(2,0), (6,2), (6,-2)\}$

(4)  $\{(-6,5), (-3,2), (1,2), (6,5)\}$

3) Given the relation.  $R = \{(-2,3), (a,4), (1,9), (0,7)\}$  Which replacement for  $a$  makes this relation a function?

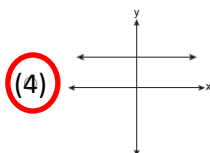
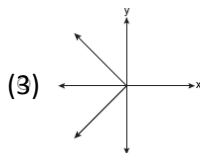
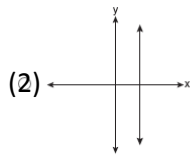
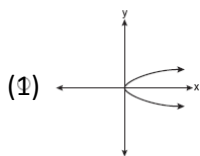
(1) 1

(2) -2

(3) 0

(4) 4

4) Which graph represents a function?



5) Using a mathematical model (*mapping diagram, table of values, ordered pairs, graph*), give an example of a relation that is a function. Give an example of a relation that is *not* a function. Explain why each of your examples is a function or *not* a function.

**Answers vary.**