Algebra 1 1.7

Determine whether a relation is a function.

Find function values

relation

function

discrete

continuous

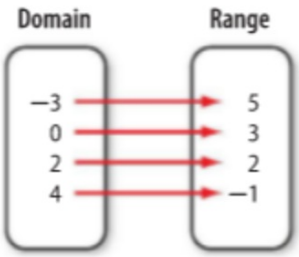
vetical line test

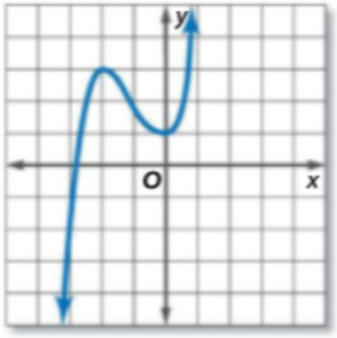
Every input has exactly one output!

KeyConcept Function

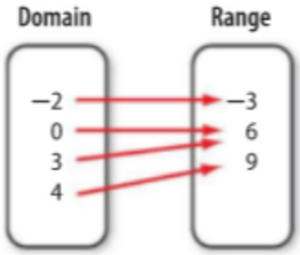
Words A function is a relation in which each element of the domain is paired with *exactly* one element of the range.

Examples





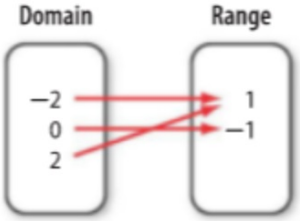
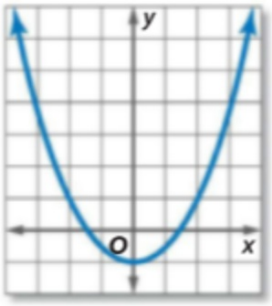
a.



b.

Domain	1	3	5	1
Range	4	2	4	−4

ConceptSummary Representations of a Function

Table	Mapping	Equation	Graph
		$f(x) = \frac{1}{2}x^2 - 1$	

Determine whether each relation is a function. Explain.

1.

2.

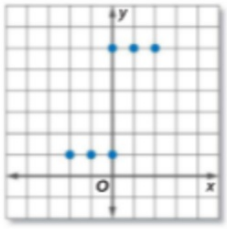
Domain	Range
2	6
5	7
6	9
6	9

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

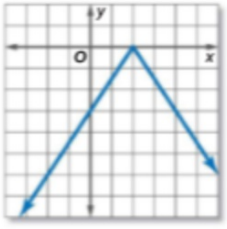
4. $y = \frac{1}{2}x - 6$

$y = mx + B$

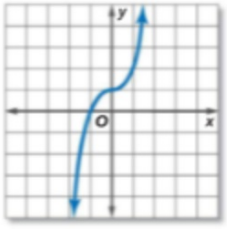
5.



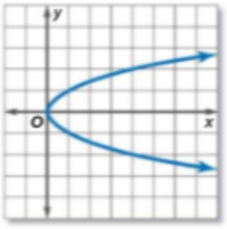
6.



7.



8.



If $f(x) = -2x - 3$ and $g(x) = x^2 + 5x$, find each value.

33. $f(-1)$
34. $f(6)$
35. $g(2)$
36. $g(-3)$
37. $g(-2) + 2$
38. $f(0) - 7$

$g(x) = (2)(2) + 5(2)$

$= 4 + 10$

$(-3)^2$