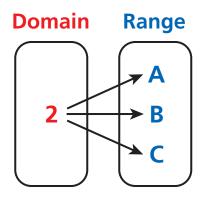


Relations and Functions

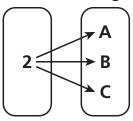
Mapping Diagram



Set of Ordered Pairs $\{(2, A), (2, B), (2, C)\}\$ $(x, y) \rightarrow (input, output) \rightarrow (domain, range)$

Domain

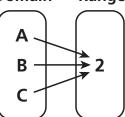
Range



Not a function:

The relationship from number to letter is *not* a function because the domain value 2 is mapped to the range values A, B, and C.

Domain Range



Function: The relationship from letter to number is a function because each letter in the domain is mapped to only one number in the range.



Relations and Functions (continued)

Vertical-Line Test

WORDS

If any vertical line passes through more than one point on the graph of a relation, the relation is not a function.

EXAMPLES

