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Worked Examples:

2001a64b0e8387184d51db8c22bfd781db0044de.pdf

Identifying functions from relations

For each relation, decide whether or not it is a function.

Relation 1	Relation 2																				
<table border="1"><thead><tr><th>Domain</th><th>Range</th></tr></thead><tbody><tr><td>z</td><td>j</td></tr><tr><td>s</td><td>g</td></tr><tr><td>s</td><td>c</td></tr><tr><td>z</td><td>w</td></tr><tr><td>g</td><td>e</td></tr></tbody></table> ☐ Function ☒ Not a function	Domain	Range	z	j	s	g	s	c	z	w	g	e	<table border="1"><thead><tr><th>Domain</th><th>Range</th></tr></thead><tbody><tr><td>9</td><td>pencil</td></tr><tr><td>9</td><td>chair</td></tr><tr><td>9</td><td>star</td></tr></tbody></table> ☐ Function ☒ Not a function	Domain	Range	9	pencil	9	chair	9	star
Domain	Range																				
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relation - any set of ordered pairs

(x, y) (Bob, 25)

function - for every x there is exactly one y

Domain - 1st (x)

Range - 2nd (y)

Identifying functions from relations

For each relation, decide whether or not it is a function.

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Domain	Range																								
r	m																								
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Relation - any set of ordered pairs

(x, y) (test name, test score)

Σ (Smith, 40), (Thomas, 65) Σ

Function - relation where for every x there is exactly one y

Domain - 1st element (x)

Range - 2nd element (y)

Identifying functions from relations

For each relation, decide whether or not it is a function.

Relation 1		Relation 2	
Domain	Range	Domain	Range
d	f	3	tree
f	w	3	pen
n	z	3	rock
d	f	3	paper
f	y	3	pencil

☐ Function
☒ Not a function

☐ Function
☒ Not a function

Relation 3		Relation 4	
$\{-5, -5\}$	$\{(6, -5), (8, -5), (-3, 9)\}$	$\{(y, 3), (k, -1), (z, 3), (k, 3)\}$	

☒ Function
☐ Not a function

☐ Function
☒ Not a function

Relation - any set of ordered pairs
 Ex: (x, y) last name, test score

Function - any relation where for every x , there is exactly one y

Domain - 1st element (x)
 Range - 2nd element (y)



Identifying functions from relations

For each relation, decide whether or not it is a function.

Relation 1		Relation 2	
Domain	Range	Domain	Range
d	f	3	tree
f	w	3	pen
n	z	3	rock
d	f	3	paper
f	y	3	pencil

☐ Function
☒ Not a function

☐ Function
☒ Not a function

Relation 3		Relation 4	
$\{-5, -5\}$	$\{(6, -5), (8, -5), (-3, 9)\}$	$\{(y, 3), (k, -1), (z, 3), (k, 3)\}$	

☒ Function
☐ Not a function

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Relation - any set of ordered pairs
 Ex: (x, y) last name, test score

Function - any relation where for every x , there is exactly one y

Domain - 1st element (x)
 Range - 2nd element (y)



Identifying functions from relations

For each relation, decide whether or not it is a function.

Relation 1		Relation 2	
Domain	Range	Domain	Range
leaf	-3	-9	-2
pencil	-9	-3	6
star	-9	5	2
pen	-9	2	-2
sky	-9		

☒ Function
☐ Not a function

☐ Function
☒ Not a function

Relation 3		Relation 4	
$\{(a, h), (h, g), (g, g), (r, h)\}$		$\{(-2, b), (-3, b), (9, b), (0, b)\}$	

☒ Function
☐ Not a function

☒ Function
☐ Not a function



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