

October 14, 2016  
**Mapping**  
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 Relation

Domain      Range

$(1,2), (2,1), (3,3), (4,4)$

- The relation maps 1 to 2
- maps 2 to 1
- maps 3 to 3
- maps 4 to 4

Oct 14-9:04 AM

**mapping**  
 $f$  is a squaring function

Domain      Range

$(1,1), (2,4), (3,9), (4,16)$  a function!

- $f$  maps 1 to 1
- $f$  : 2 to 4
- $f$  : 3 to 9
- $f$  : 4 to 16

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$f : x \rightarrow x^2$   
 $f : (5) \rightarrow (5)^2$   
 $\rightarrow 25$

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$f : x \rightarrow x^2$  mapping

↓

$f(x) = x^2$  Function Notation

Input      Rule

$f(5) = (5)^2$   
 $= 25 \rightarrow (5, 25)$

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$f : x \rightarrow 3x - 5$

$f(x) = 3x - 5$

$y = 3x - 5$

$m = \frac{3}{1}$        $y$ -int  $(0, -5)$

$x$	$f(x) = y$
0	-5
1	-2
-3	-14

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$(2, -5), (-3, 1), (6, -1), (2, 1)$

not a function!  
 $(2, -5) \neq (2, 1)$

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