

Pg. 271 (8-22 evens, 23-25, 31-34)

(8)

x	y
3	7
3	8
3	-2
3	4
3	1

No, one input maps to many different outputs.

Domain: 3

Range: -2, 1, 4, 7, 8

(10)

x	y
0.04	0.2
0.2	1
1	5
5	25

Yes, one input maps to one output.

Domain (0.04, 0.2, 1, 5)

Range (0.2, 1, 5, 25)

(12) Fails vertical line test  
-1 maps to 1 and -1  
\* Not a function

(14) Passes vertical line test  
Function

(16)  $d(t) = 186,000t$   
 $d(30) = 186,000(30)$   
 $d(30) = 5,580,000$  miles  
\* Recall the value of the function at 30

(18)  $f(x) = 2x - 7$

x	y
-2	-11
-1	-9
0	-7
1	-5
2	-3

Domain: -2, -1, 0, 1, 2  
Range: -11, -9, -7, -5

(20)  $h(x) = x^2$

x	y
-1.2	1.44
0	0
0.2	0.04
1.2	1.44
4	16

Range: 0, 0.04, 1.44, 16

(22) The car travels 32 miles per gal

\* maximum it holds is 17

\* on empty it is 0

\* can't have anything less than zero in the tank!

D:  $0 \leq x \leq 17$

or  $[0, 17]$

Range

$y = 32(0)$

0

$y = 32(17)$

544

$0 \leq x \leq 544$

$[0, 544]$

(23)  $V(c) = 98c$

\* you can 0 cups of milk

\* you can have a maximum of 16 cups of milk

D:  $0 \leq c \leq 16$

$[0, 16]$

R:

$v(0) = 98(0)$

0

$v(16) = 98(16)$

1,568

$0 \leq v \leq 1568$

$[0, 1568]$

(24)

x	y
0	2
3	1
3	-1
5	3

Not a function,  
3 maps to 2  
outputs

(25)

x	y
-4	-4
-1	-4
0	-4
3	-4

Function,  
every input has  
one output

(34)

In	Out
a	b
b	c
c	d
d	e

Yes

(31)

In	Out
a	b
b	a
c	c
e	d

Yes

(32)

In	Out
b	b
c	d
d	c
c	a

\* c has 2 outputs

(33)

In	Out
c	e
c	d
c	b

No, c has 3 outputs