

Math 8C

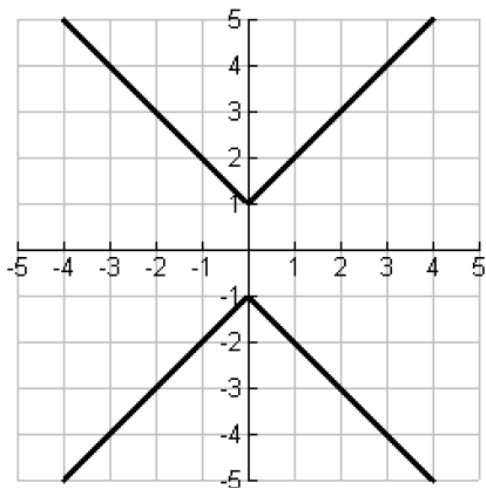
Unit 4 – Day 2

Standards:

- ✓ Determine if a relation is a function.
- ✓ Determine the domain and range of a relation.

Warm Up

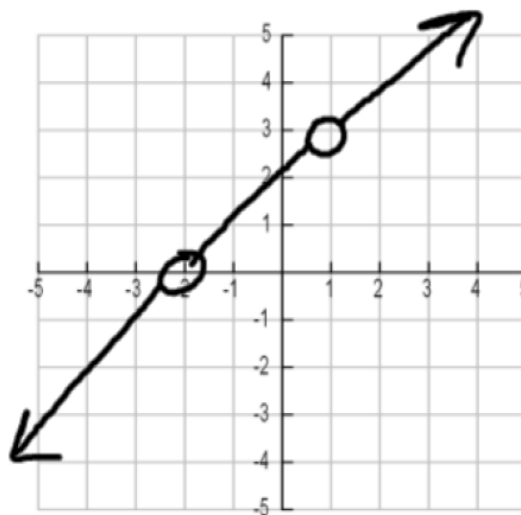
- Determine if the following relations are functions and state their domains and ranges



No

Domain: $-\infty \leq x \leq \infty$

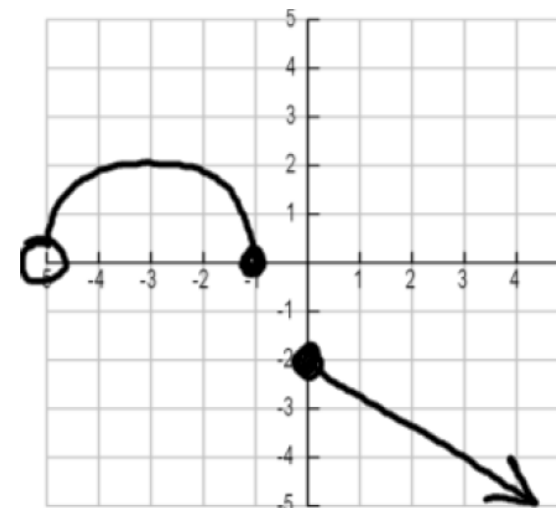
Range: $y \leq -1, y \geq 1$



Yes

Domain: $x < -2, -2 < x < 1, x > 1$

Range: $y < 0, 0 < y < 3, y > 3$



Yes

Domain: $-5 < x \leq -1, x \geq 0$

Range: $y \leq -2, 0 \leq y \leq 2$

Multiple Representations

- As we learned earlier, functions (and relations) can be represented in many ways...
- As a table:
 - Is this a function?
 - Yes! Because each value of x gives only one value for y

x	y
2	4
4	16
-2	4
0	0
1	1

Discuss with your table

and decide which of these tables are functions

1

x	y
3	6
2	4
-2	-4
2	4
-3	-6

Yes

2

x	y
0	0
1	1
2	4
3	9
4	16

Yes

3

x	y
4	-2
1	-1
0	0
1	1
4	2

No

Then be able to explain why you think so.

Domain & Range?

1

x	y
3	6
2	4
-2	-4
2	4
-3	-6

Domain: $\{-3, -2, 2, 3\}$
Range: $\{-6, -4, 4, 6\}$

2

x	y
0	0
1	1
2	4
3	9
4	16

Domain: $\{0, 1, 2, 3, 4\}$
Range: $\{0, 1, 4, 9, 16\}$

3

x	y
4	-2
1	-1
0	0
1	1
4	2

Domain: $\{0, 1, 4\}$
Range: $\{-2, -1, 0, 1, 2\}$