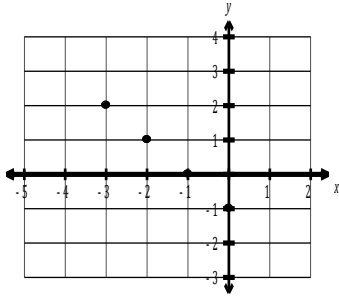


For each graph, give the **domain** and **range**. Use **words**, a **number line**, **set notation**, and **interval notation** (if possible).

1.

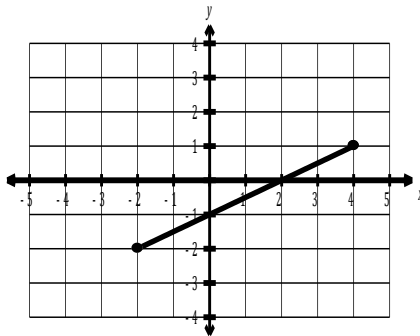


Is this relation a function? Explain.

Yes, there is only one dependent value for each independent value. Also passes the vertical line test.

	Domain	Range
Words	All integers equal to or greater than -3 and less than or equal to 0.	All integers equal to or greater than -1 and less than or equal to 2.
Number Line		
Interval Notation	not applicable	not applicable
Set Notation	$\{x / -3 \leq x \leq 0, x \in \mathbb{I}\}$ One of 4 answers	$\{y / -1 \leq y \leq 2, y \in \mathbb{I}\}$ One of 4 answers
List	-3, -2, -1, 0	-1, 0, 1, 2

2.

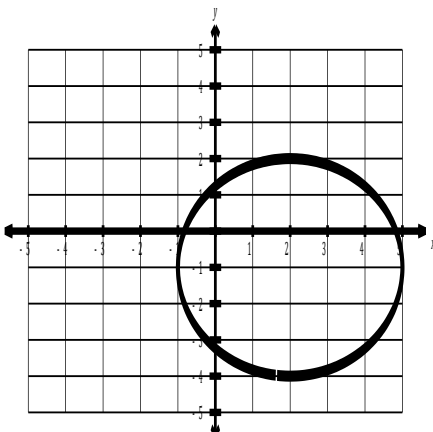


Is this relation a function? Explain.

Yes, there is only one dependent value for each independent value. Also passes the vertical line test.

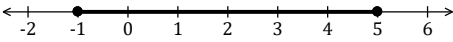
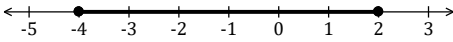
	Domain	Range
Words	All real numbers between -2 and 4, not including -2 but including 4.	All real numbers between -2 and 1, not including -2 but including 1.
Number Line		
Interval Notation	$(-2, 4]$	$(-2, 1]$
Set Notation	$\{x -2 < x \leq 4, x \in \mathbb{R}\}$	$\{y -2 < y \leq 1, y \in \mathbb{R}\}$

3.

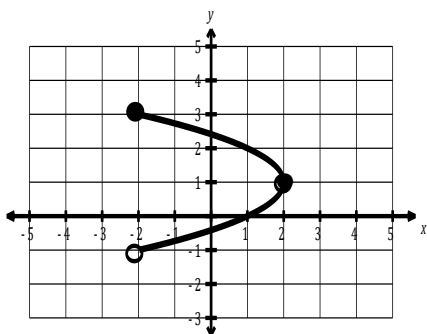


Is this relation a function? Explain.

NO! It does not pass the vertical line test.

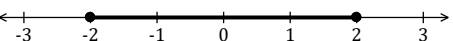
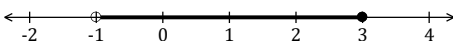
	Domain	Range
Words	All real numbers between -1 and 5, inclusive.	All real numbers between -4 and 2, inclusive.
Number Line		
Interval Notation	$[-1, 5]$	$[-4, 2]$
Set Notation	$\{x -1 \leq x \leq 5, x \in \mathbb{R}\}$	$\{y -4 \leq y \leq 2, y \in \mathbb{R}\}$

4.

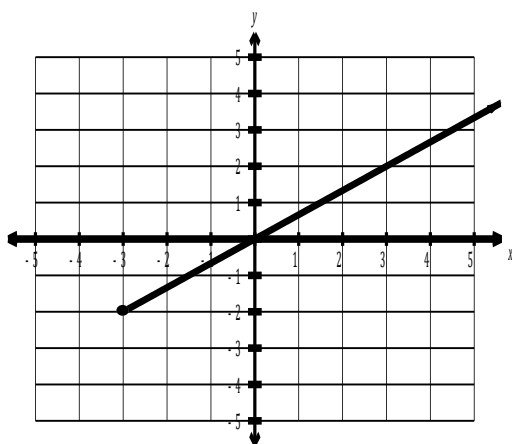


Is this relation a function? Explain.

NO! It does not pass the vertical line test.


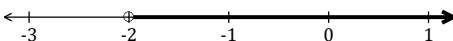
	Domain	Range
Words	All real numbers between and including -2 and 2.	All real numbers between -1 and 3, not including -1 but including 3.
Number Line		
Interval Notation	$[-2, 2]$	$(-1, 3]$
Set Notation	$\{x -2 \leq x \leq 2, x \in \mathbb{R}\}$	$\{y -1 < y \leq 3, y \in \mathbb{R}\}$

5.



Is this relation a function? Explain.

Yes, there is only one dependent value for each independent value. Also passes the vertical line test.

	Domain	Range
Words	All real numbers greater than -3.	All real numbers greater than -2.
Number Line		
Interval Notation	$(-3, \infty)$	$(-2, \infty)$
Set Notation	$\{x / x > -3, x \in \mathbb{R}\}$	$\{y / y > -2, y \in \mathbb{R}\}$