

Warm-Up!

- Write the explicit rule for the Sequence.

2, 14, 34, 62, ...

Unit 2

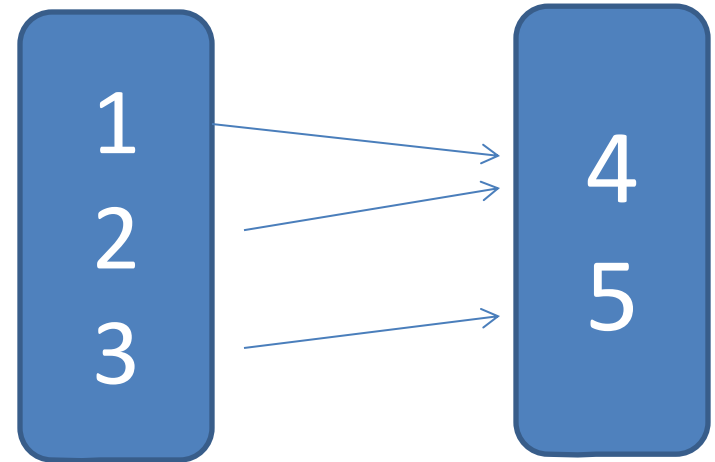
REVIEW

Functions

• 1

x	Y
1	2
2	3
2	4
3	4

2

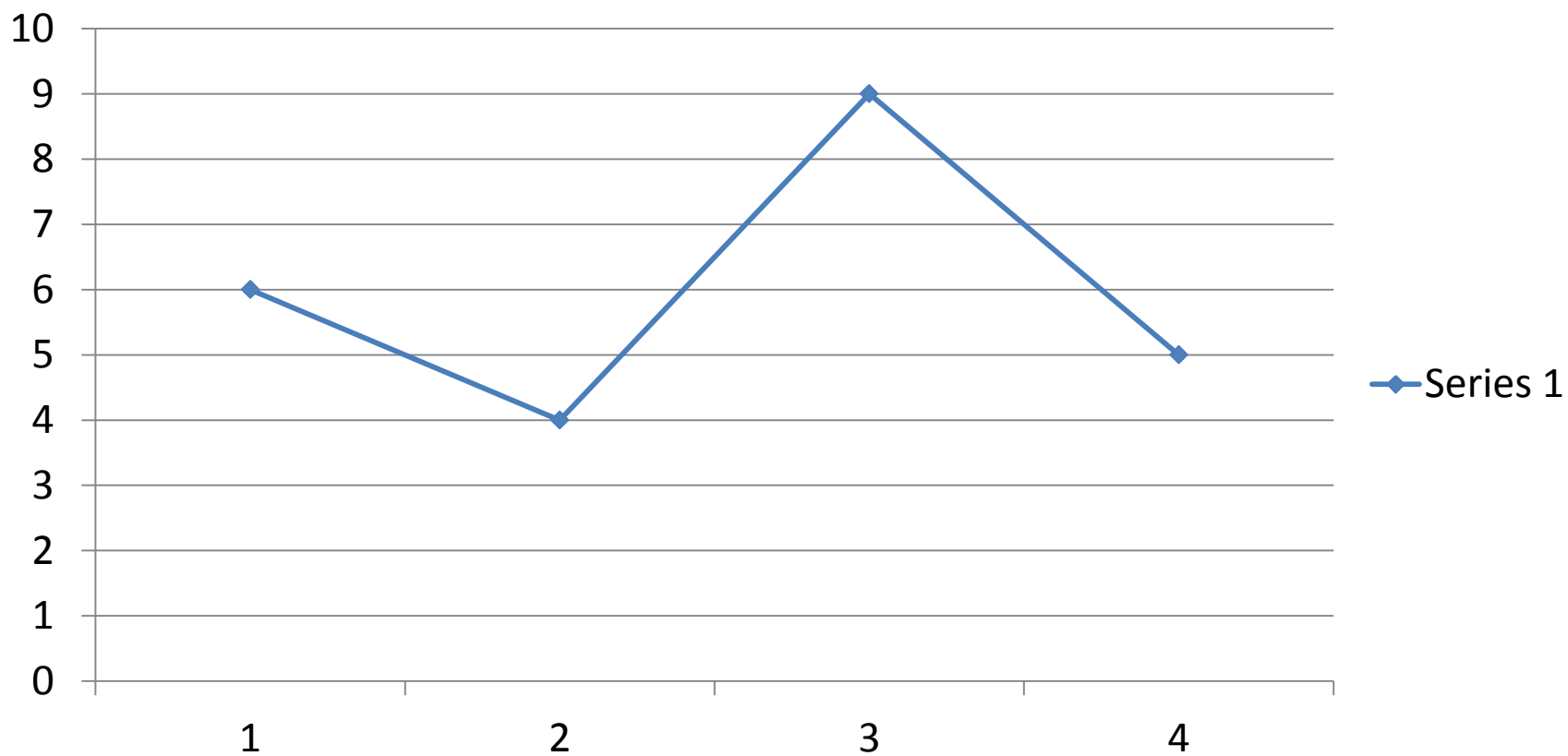


• 3 $\{(2, 3), (3, 4), (4, 5), (5, 5)\}$

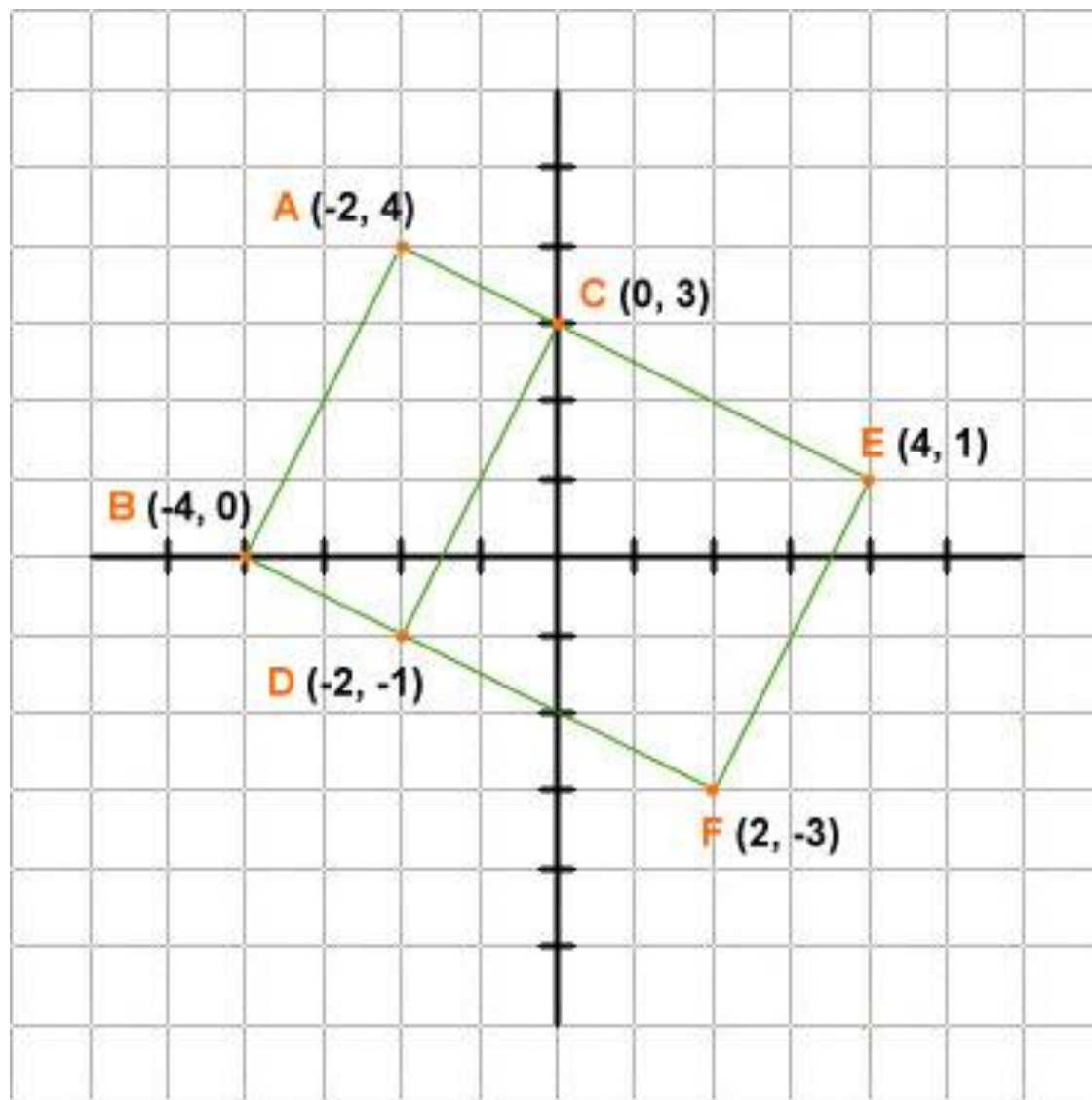
- A. 1 only B. 2 only C. 3 only
- D. 1 and 2 E. 1 and 3 F. 2 and 3
- G. All of them H. None of them

Functions

Series 1



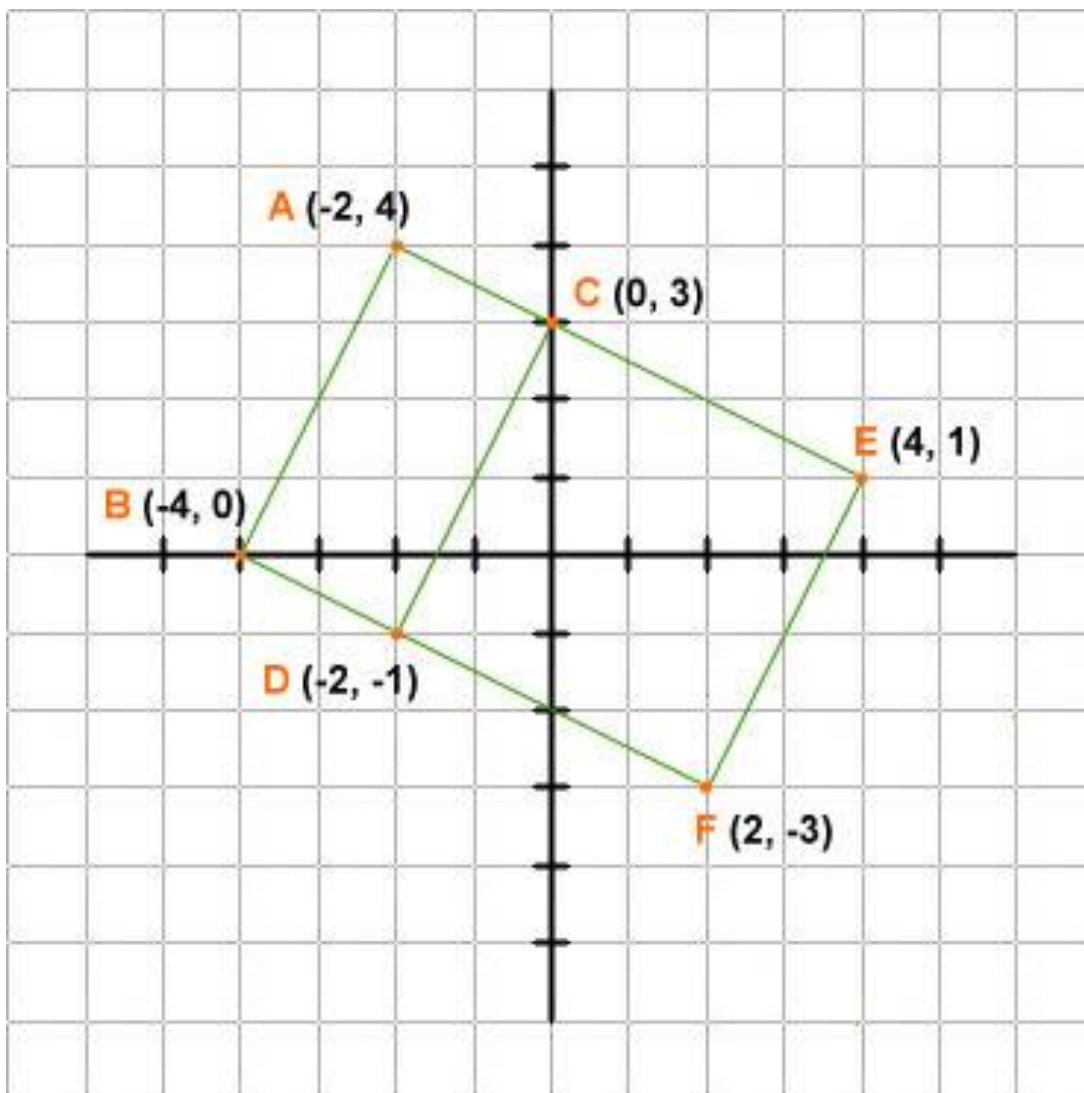
Functions



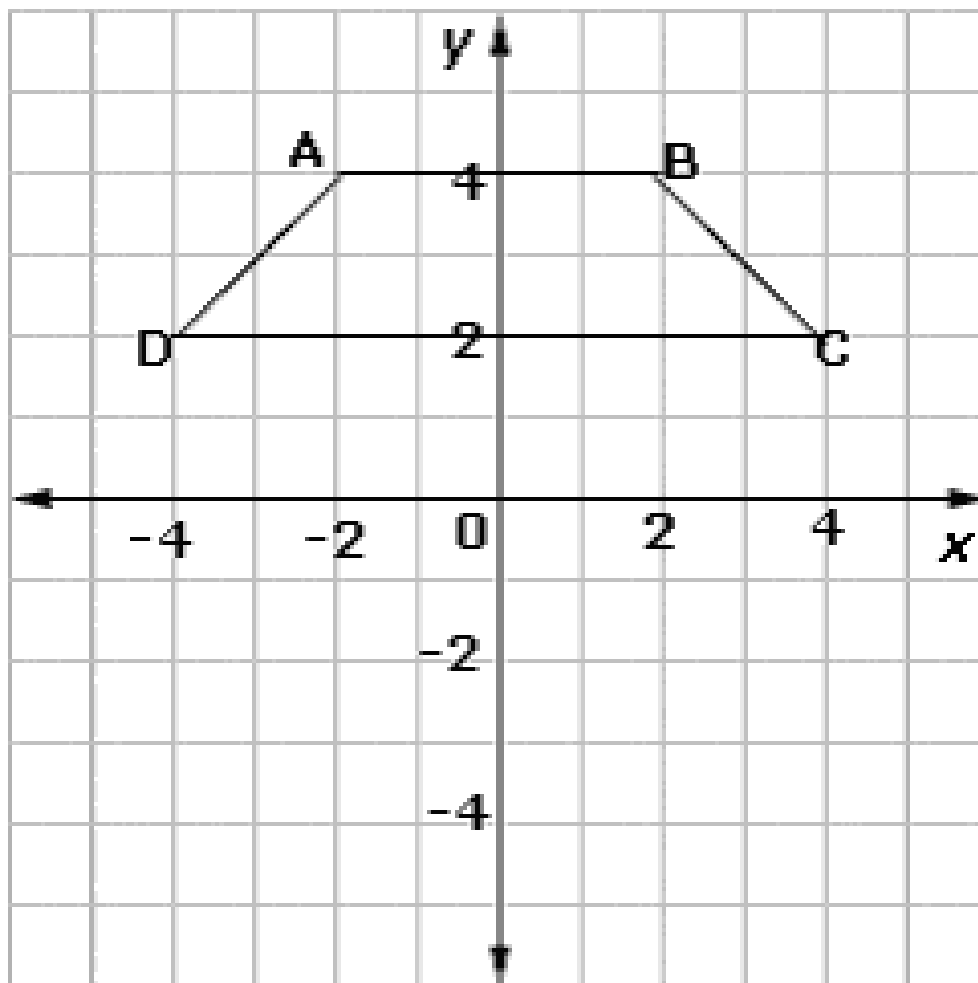
FUNCTIONS

- How do you know if a problem is a function
 - Table
 - Mapping Diagram
 - Equation
 - Graph
 - Relations (Points)

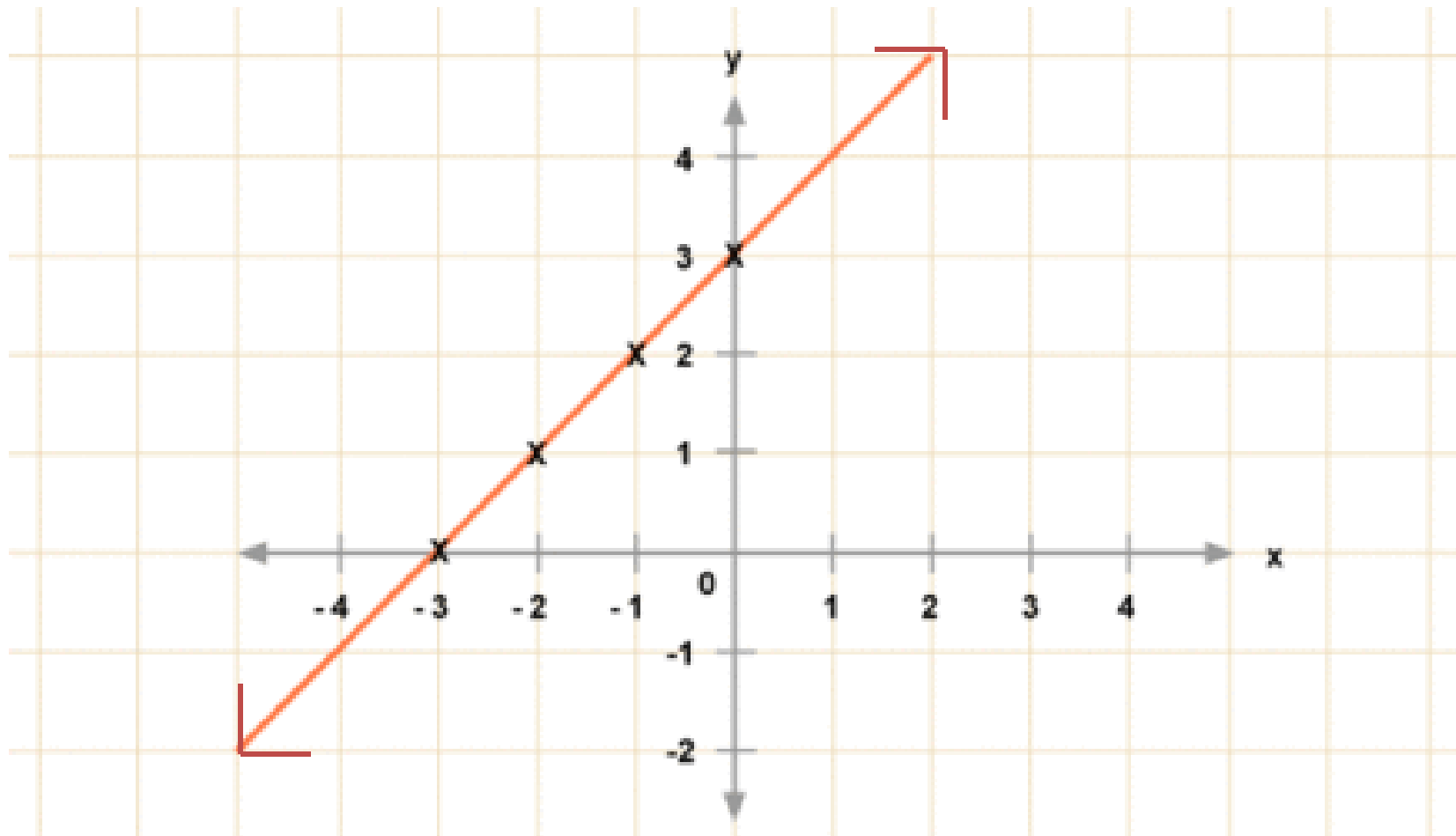
Domain and Range



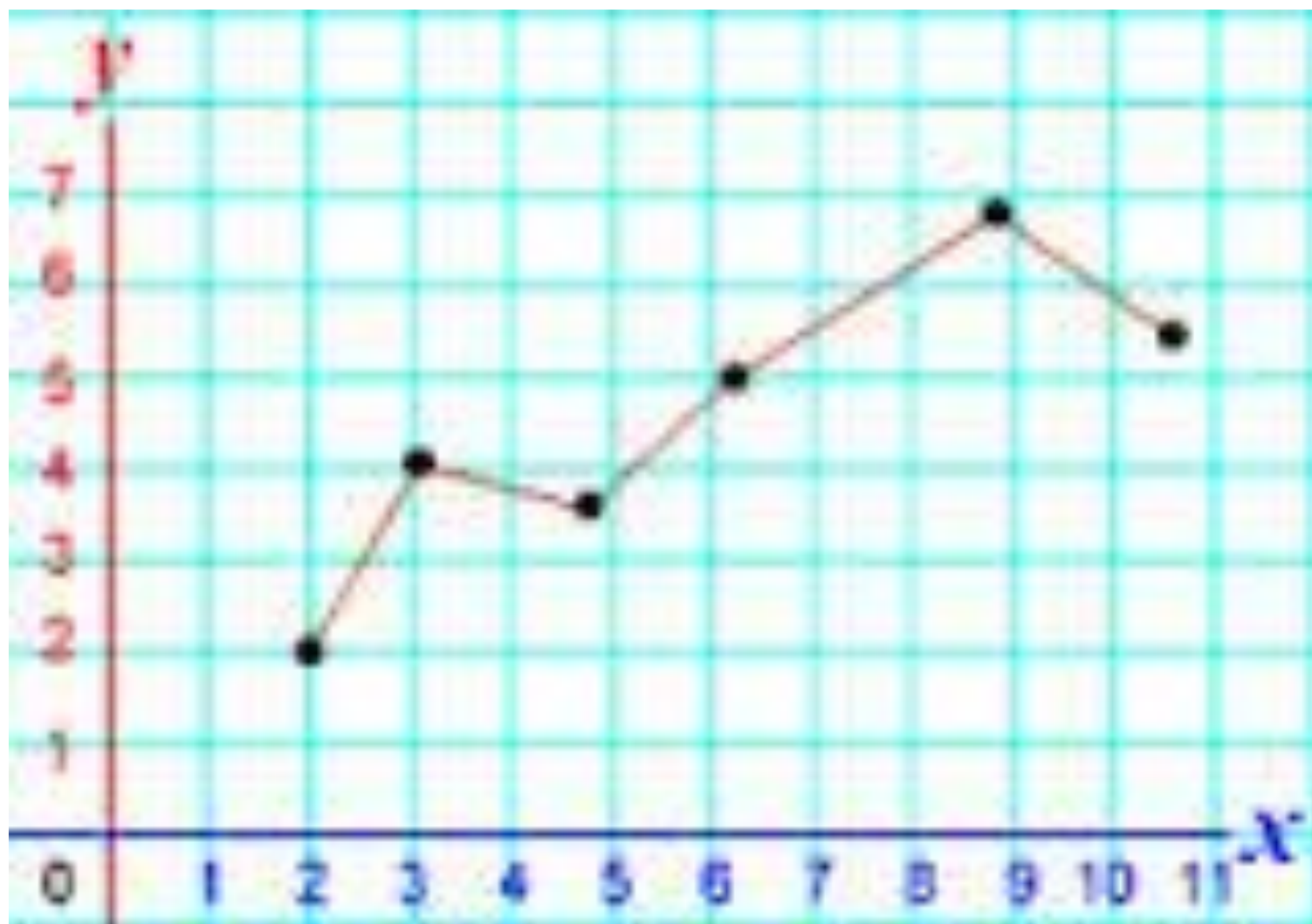
Domain and Range



Domain and Range



Domain and Range



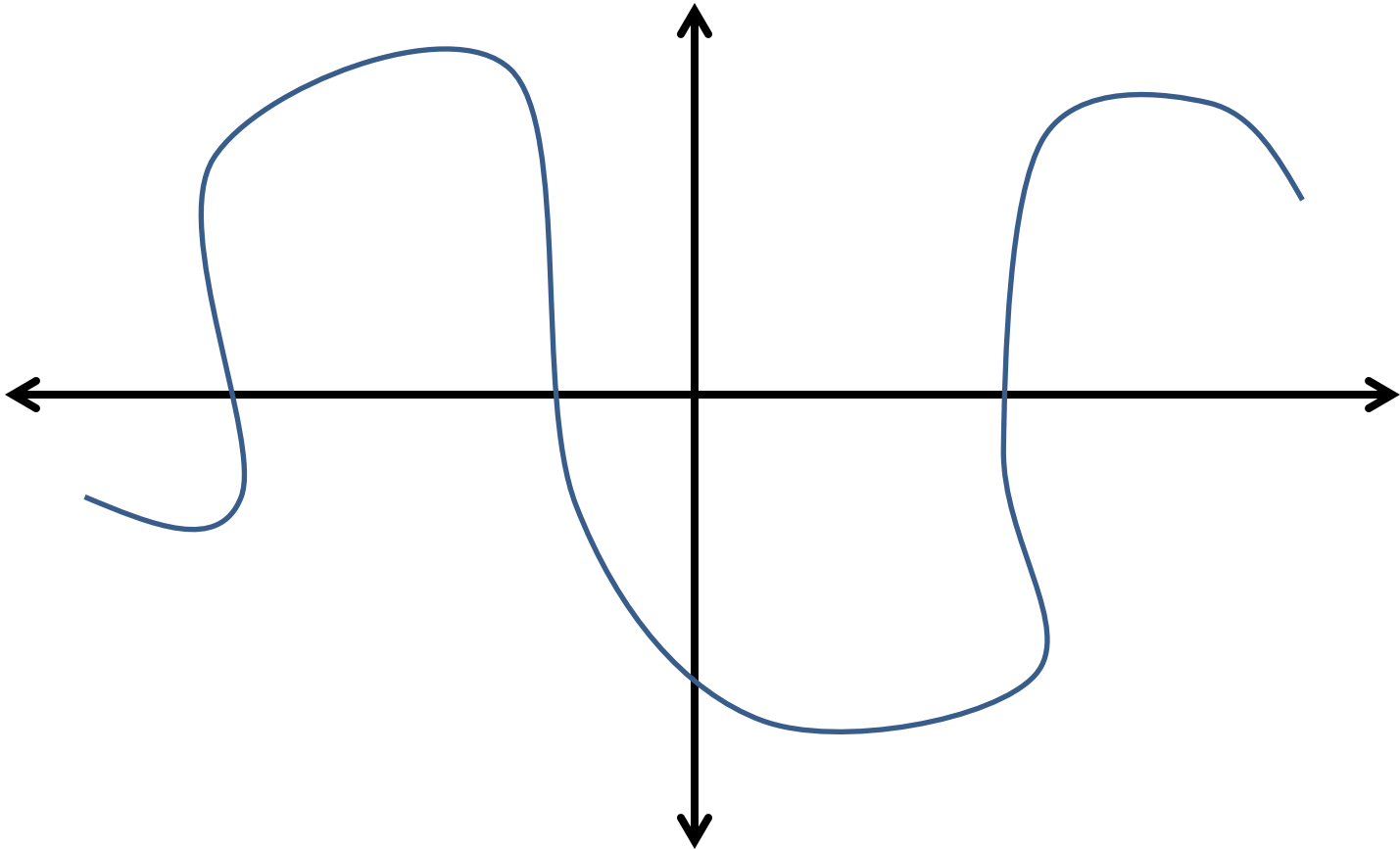
Domain and Range

Domain and Range

- Domain is ...
- Range is...

Warm-Up!

- Is the graph a function?



Equations

- $f(x) = 3x + 5$
- Find $f(2)$ and $f(-3)$

- $f(x) = -2x - 4$
- Find $f(-4)$ and $f(3)$

Independent and Dependent

- Mike mows yards at \$10 per yard. He already has \$50 in his bank account. Write an equation to find the total savings in yards.
- Explain what the variables are

Independent and Dependent

- Jon joins a library. The library cost him \$5 to join and \$1 per book he reads. Write an equation to find the total cost.
- Explain what the variables are

Independent and Dependent

- Jen joins a gym. The gym cost \$50 to join and then \$5 per entry. Write an equation to find the total cost.
- Explain what the variables are

Independent and Dependent

- Independent
- Dependent

Graphs and tables

- What are the intercepts
- What do they represent

Time (hours)	Distance Remaining (miles)
0	200
1	150
2	100
3	50
4	0

Graphs and tables

- What are the intercepts and what do they represent
- Mike has a bike shop. He rents bikes and skateboards. Each bike is \$10 and each skateboard is \$5. He needs to make at least \$100 a day to stay in business. Make an equation.

Graphs and tables

- What are the intercepts and what do they represent
- Jamie has a salon. She does hair and nails. Nails cost \$20 and hair costs \$40. She wants to make at least \$200 a day. Make an equation.

Graphs and tables

- X – intercept
- Y – intercept
- Slope

Warm Up

- Why is the graph of a line not a good representation of a word problem involving sales.

Sequences

- What type is it
- 1. $-5, -1, 3, 7 \dots$
- 2. $-40, 20, -10, 5 \dots$
- 3. $-3, 6, 21, 42 \dots$
- 4. $2, -4, -14, -28 \dots$
- 5. $19, 13, 7, 1 \dots$
- 6. $-2, 2, -2, 2 \dots$

Explicit Formulas

- Find the formula
- 1. -3 , 5 , 13 , 21 ...
- 2. 7 , 3 , -1 , -5 ...
- 3. -9 , -6 , -3 ...
- 4. 11 , 50 , 115 , 206 ...
- List the first 4 terms and 13th term
- 1. $f(x) = 2x + 3$
- 2. $s(n) = -3n - 5$
- 3. $a(b) = 5b - 13$
- 4. $f(x) = 5x^2 - 1$

Recursive Formulas

- Find a recursive formula
- 1. 5 , -4 , -13 , -22...
- 2. 7 , 13 , 19 , 25 ...
- 3. -6 , 18 , -54 , 162...
- Find the first 5 terms
- 1. $a_1 = 7$ and $a_n = a_{n-1} - 13$
- 2. $a_1 = -8$ and $a_n = a_{n-1} + 6$
- 3. $a_1 = -3$ and $a_n = 2a_{n-1}$