



Grade 6 Math



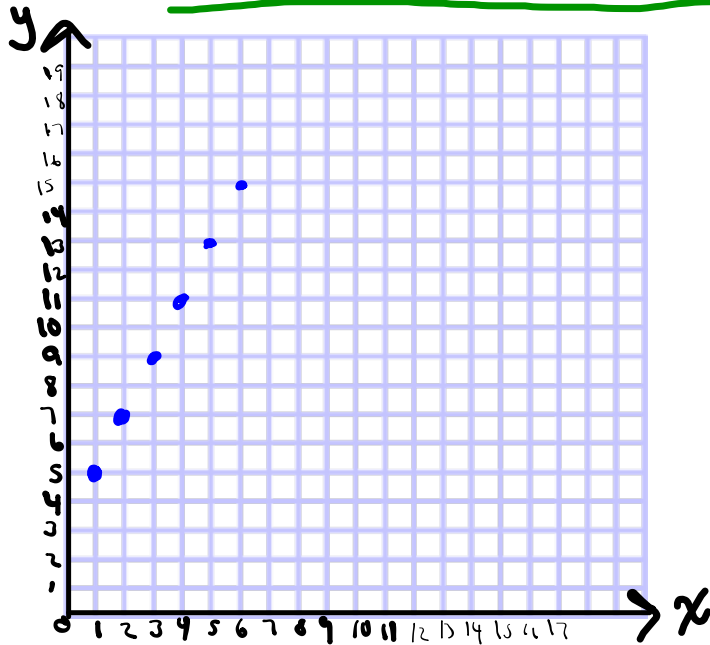
Date: \_\_\_\_\_

1) Use grid paper. graph each table. Describe the relationship shown on the graph

x	y
1	5
2	7
3	9
4	11

+1 ↘ ↗ +2

→ ↑  
 (1,5)  
 (2,7)  
 (3,9)  
 (4,11)



As  $x$  increases by 1,  $y$  increases by 2.

# Homework Solutions

## Practice



1. Record each pattern in a table. Then draw a graph to represent the pattern. Explain how the graph represents the pattern.

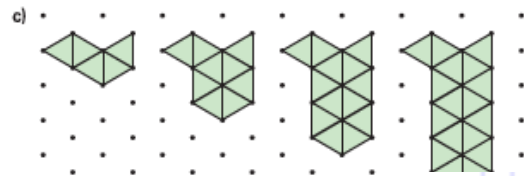


figure #	# of Blocks	Ordered pair
1	1	(1,1)
2	2	(2,2)
3	3	(3,3)
4	4	(4,4)

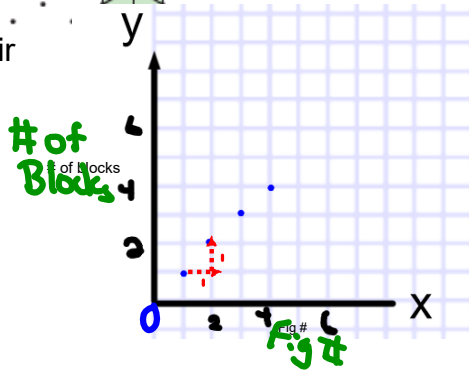


figure #	# of circle	Ordered pair
1	4	(1,4)
2	7	(2,7)
3	10	(3,10)
4	13	(4,13)

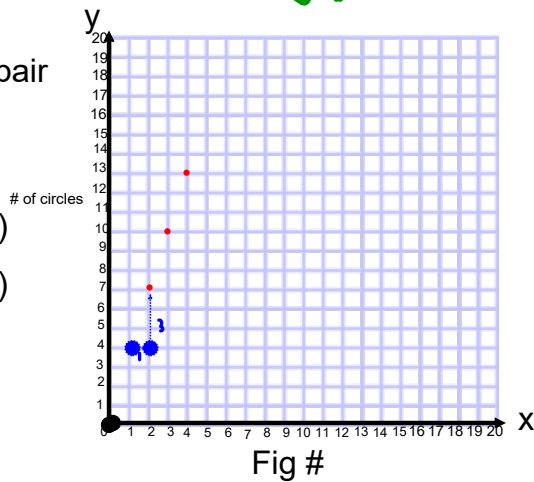
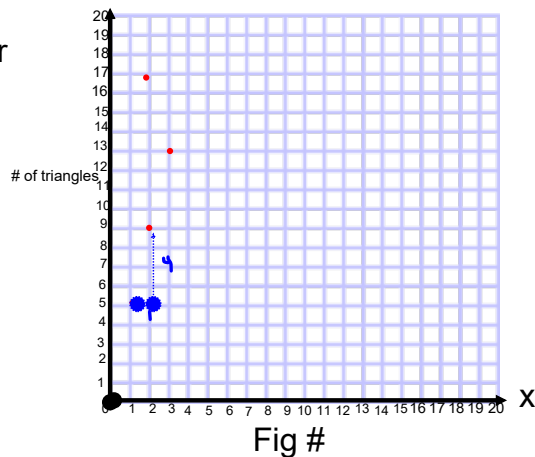


figure #	# of triangles	Ordered pair
1	5	(1,5)
2	9	(2,9)
3	13	(3,13)
4	17	(4,17)



# Homework Solutions

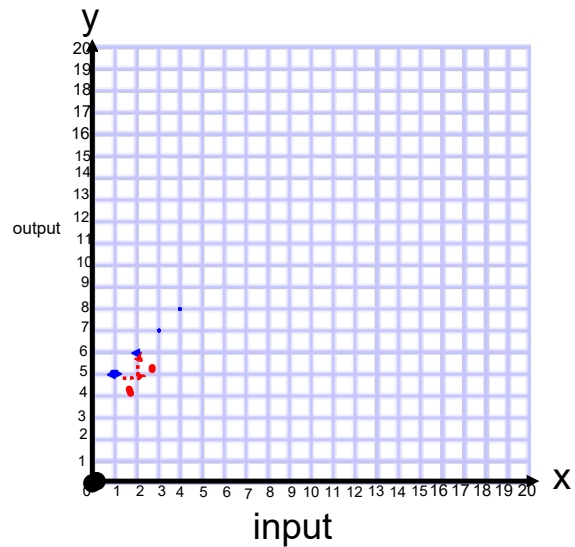
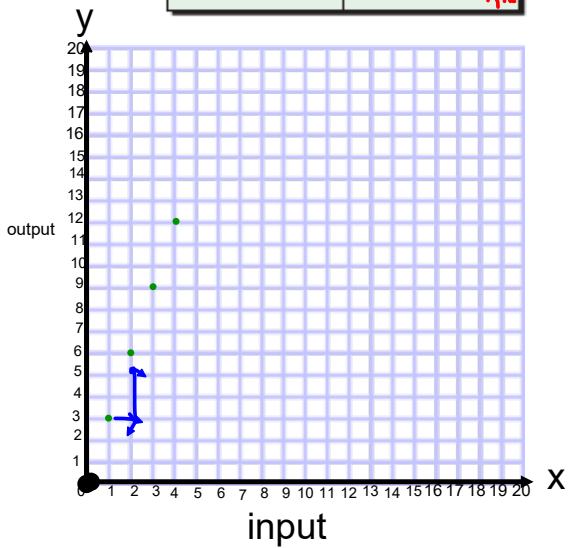
2. Use grid paper. Graph each table.  
Describe the relationship shown on the graph.

a)

Input	Output
1	3
2	6
3	9
4	12

b)

Input	Output
1	5
2	6
3	7
4	8





## Discrete & Continuous



### Continuous Data (Connect)

When given a graph sometimes you can connect the dots. This is continuous.

Continuous Data can take any value

Ex) The height of a person

### Discrete Data (Dots)

Discrete Data can only take certain values. (Not connected, just dots)

ex) Number of people who attend a dance

How do you decide?

Ask yourself if you can have half or part of the object in problem

Can have part of a height (6.5 feet)

BUT

Cannot have half a person at a dance

Let's try Continuous or Discrete



Would you use a line graph or a series of points to display each set of data?

Explain your choices

a) The area of house

Connect points b/c you can have part of a measurement / area. (Ex  $5.65 \text{ m}^2$ )

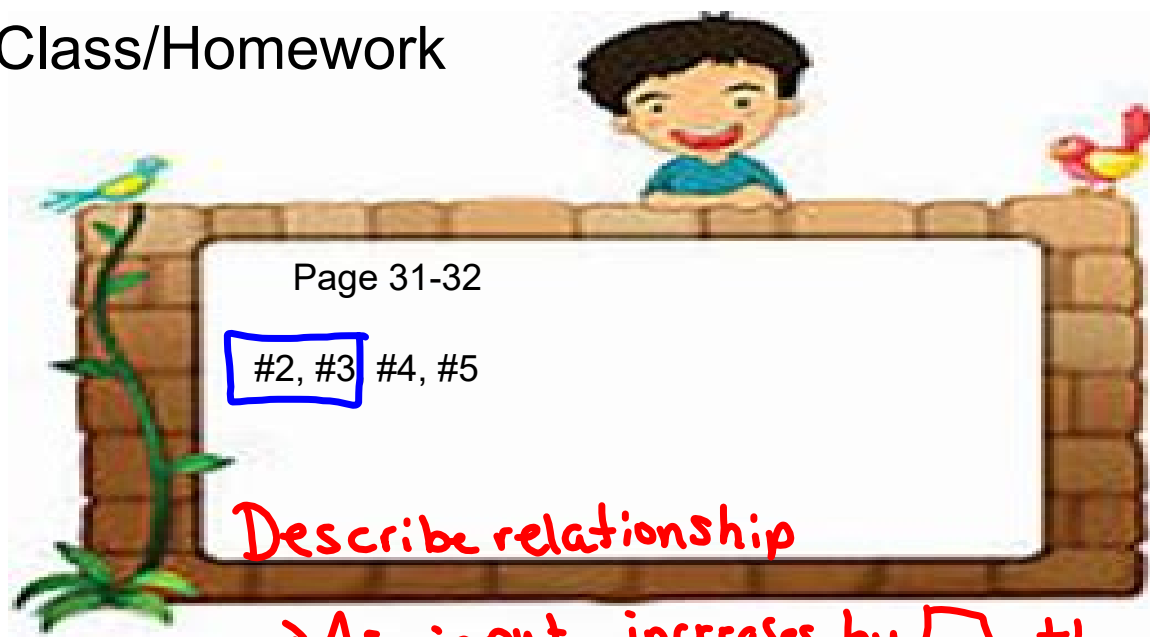
b) The number of scores you made in a soccer game

Discrete (Dots) b/c you cannot have part of a goal.

c) The time it takes for you to complete your homework.

↓  
You can have part of an hour or minute  
So data is continuous (connected)

## Class/Homework



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#2, #3 #4, #5

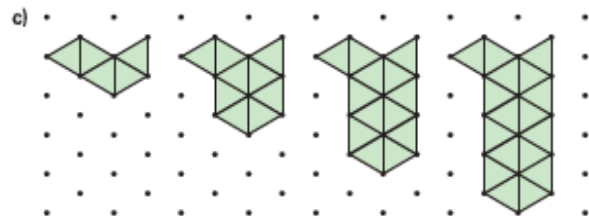
Describe relationship

→ As input increases by , the  
Output

**Practice**



1. Record each pattern in a table. Then draw a graph to represent the pattern. Explain how the graph represents the pattern.



2. Use grid paper. Graph each table.  
Describe the relationship shown on the graph.

a)

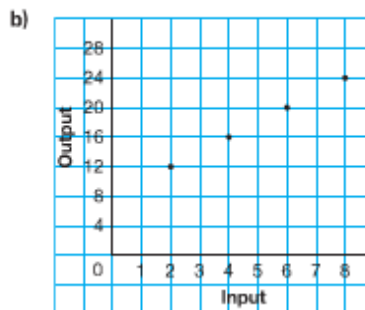
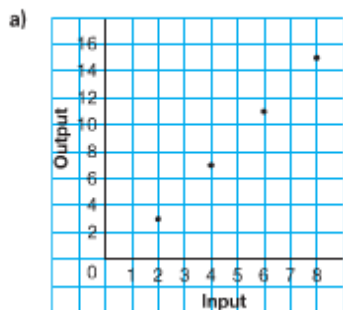
Input	Output
1	3
2	6
3	9
4	12

b)

Input	Output
1	5
2	6
3	7
4	8



3. For each graph, make an Input/Output table.





4. Use grid paper.
- a) Graph the data in the table.
  - b) Describe the relationship shown on the graph.
  - c) Write an expression to represent the pattern.
  - d) Find the number of shapes in the 8th figure.  
What strategy did you use?  
Could you use the same strategy to find the number of shapes in the 18th figure?  
Explain.

Figure Number	Number of Shapes
1	1
2	6
3	11
4	16
5	21

5. Use grid paper.
  - a) Make a table.  
Record the figure number and the number of counters in a figure.
  - b) How does the graph represent the pattern?
  - c) Find the number of counters in the 7th figure.  
Describe the strategy you used.
  - d) How many counters are in the 23rd figure?  
Describe the strategy you used to find out.

