Name _____

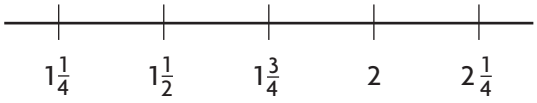
Exploring the Average

For 12 days, Keisha keeps track of how much water she drinks per day. Her results are shown below.

$1\frac{1}{2}$ quarts, $2\frac{1}{4}$ quarts, 2 quarts, $1\frac{1}{2}$ quarts, $1\frac{3}{4}$ quarts, $1\frac{1}{2}$ quarts,

$1\frac{1}{4}$ quarts, 2 quarts, $2\frac{1}{4}$ quarts, $1\frac{1}{2}$ quarts, 2 quarts, $1\frac{1}{2}$ quarts

1. Use the data to make a line plot.



Keisha's Daily Water Consumption (in quarts)

2. What is the total amount of water that Keisha drinks during the 12 days?

_____

3. What is the average amount of water that Keisha drinks per day?

_____

4. On how many days did Keisha drink at least the average amount of water?

_____

5. **Stretch Your Thinking** On Day 13, Keisha drinks 1 quart of water. How does this affect the average amount of water she drinks? **Explain**.

_____

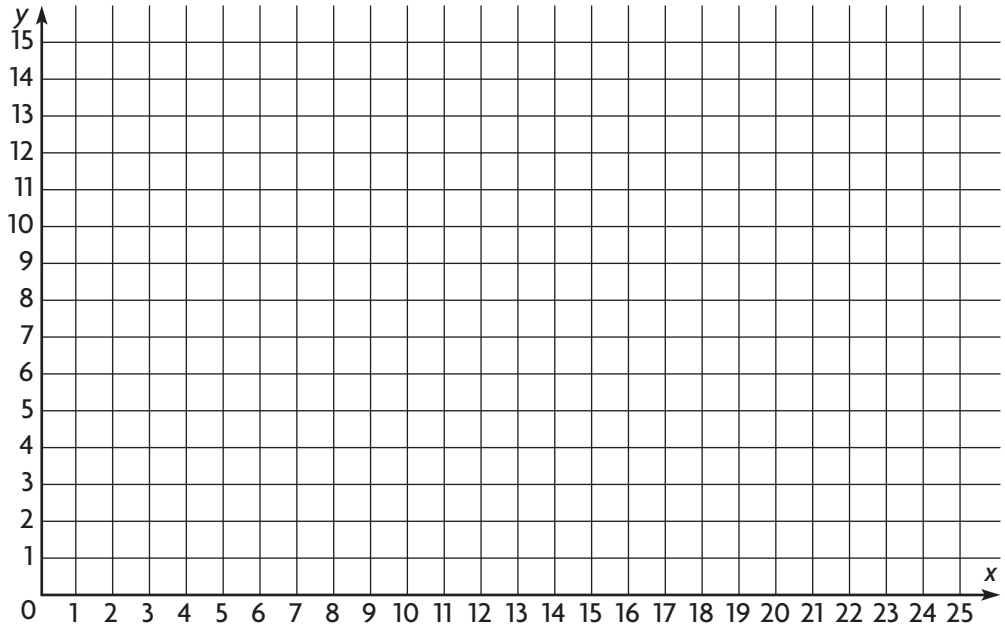
_____

_____

Name _____

Coordinate Grid Graphing Riddle

Plot the ordered pairs on the coordinate grid below.
Then connect points 1–14 in the order in which you plotted them.



1. *T* (2, 11)

2. *C* (4, 9)

3. *U* (7, 10)

4. *P* (10, 12)

5. *N* (12, 10)

6. *R* (20, 9)

7. *A* (21, 8)

8. *L* (20, 7)

9. *F* (21, 6)

10. *J* (16, 5)

11. *I* (13, 4)

12. *Z* (13, 6)

13. *S* (4, 7)

14. *K* (2, 5)

15. *H* (19, 8)
(*H* is a separate point)

After you've connected points 1–14, use the names of the points in the odd-numbered exercises to spell the answer to the riddle.

Riddle: What marine animal can tune musical instruments?

A _ _ _ _ _ _ _ _

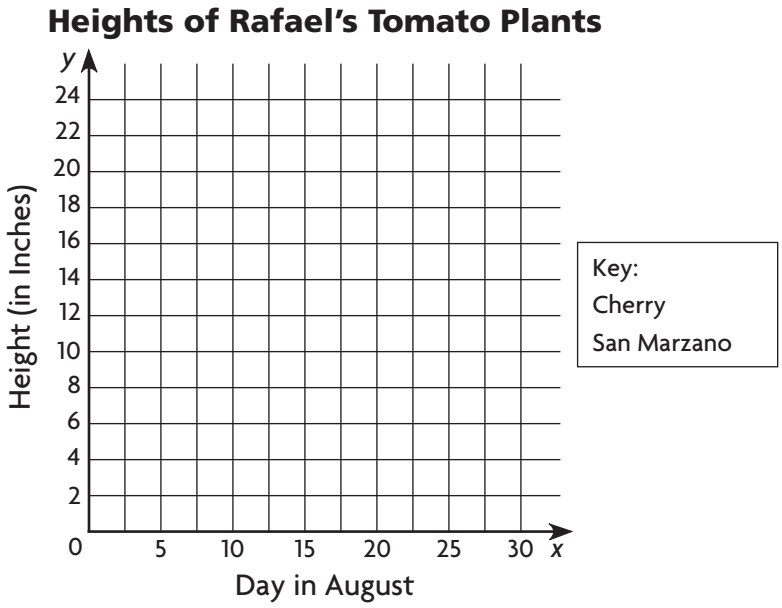
Name _____

Graphing and Analyzing Tomato Plant Data

Rafael has two plants: a cherry tomato plant and a San Marzano tomato plant. Every 5 days in August, Rafael records the height of his cherry tomato plant. He knows that the San Marzano tomato plant grows exactly 2 inches every 5 days.

Day in August	Cherry Plant Height (in inches)	San Marzano Plant Height (in inches)
5	6	8
10	10	
15	14	
20	15	
25	18	
30	23	

1. Graph Rafael's cherry tomato plant data on the coordinate grid.
2. Complete the table above by filling in the height of the San Marzano plant.
3. Use the completed table. Graph Rafael's San Marzano tomato plant data on the same coordinate grid. You may want to use a different color than you used in Exercise 1.



4. **Stretch Your Thinking** What do you notice about the two sets of data you graphed?

_____

_____

_____

Name _____

Relating Graphs and Tables

For 5 months, the Department of Fish & Game counted the number of fish that were stocked in the county lakes, but the department mixed up their tables and graphs. Match each table to the correct line graph.

1. Lake: _____

Monthly Number of Fish Stocks in County Lakes					
Month	1	2	3	4	5
Fish Stocks	150	195	225	280	340

2. Lake: _____

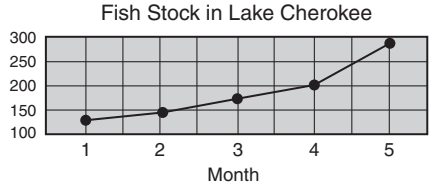
Monthly Number of Fish Stocks in County Lakes					
Month	1	2	3	4	5
Fish Stocks	153	153	153	153	153

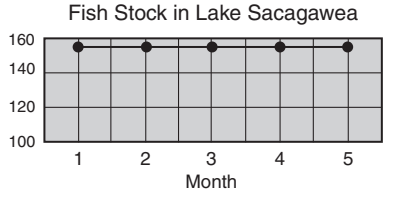
3. Lake: _____

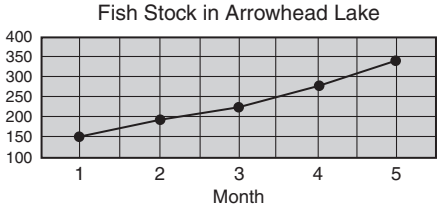
Monthly Number of Fish Stocks in County Lakes					
Month	1	2	3	4	5
Fish Stocks	280	265	220	185	110

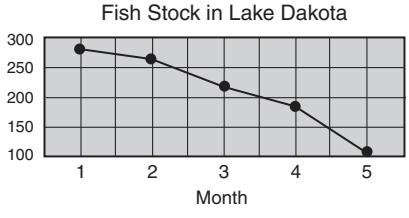
4. Lake: _____

Monthly Number of Fish Stocks in County Lakes					
Month	1	2	3	4	5
Fish Stocks	130	145	175	205	290









Stretch Your Thinking

5. Use the line graphs above to describe the overall changes in the numbers of fish stocks in each lake.

_____

_____

_____

_____

Name _____

Patterns in Tables

For the first sequence, use the rule to write the unknown terms. Then, find a rule that relates one sequence to the other and use it to find the unknown terms in the second sequence.

1. **Rule: Add 3.**

3				
	18		36	45

Multiply by _____.

2. **Rule: Add 10.**

10				
5	10	15		

Divide by _____.

3. **Rule: Subtract 4.**

20				
40		24		8

Multiply by _____.

4. **Stretch Your Thinking** Make your own pattern table. Use addition, subtraction, or multiplication rules. Fill in all the unknown terms.

Rule: _____

_____

_____

Simply Equated

Look for a pattern to solve each problem.

1. Amanda puts two rectangles together to form a new rectangle. Both rectangles have a height of 3 inches. The base of one rectangle is 2 inches. The base of the other is 4 inches. If Amanda puts 10 of each rectangle together, end to end, what will be the distance around the new figure?

_____

2. Carlos joins a DVD club. The membership costs $49 per year. Each DVD costs $4. Suppose Carlos buys 28 DVDs this year. How much money will he spend on the DVD club?

_____

3. Brandon wants to join a video game club. The membership costs $47, and every game that he rents will cost $2. If Brandon rents 17 games, how much money will he spend in all?

_____

4. The table shows how much money Eduardo earns as a golf coach. He charges a flat fee of $38, plus $22 per hour. Complete the table. If Eduardo coaches for 8 hours, how much money will he make?

Number of Hours	1	2	3	4
Amount Earned ($)	60			

_____

5. Write Math Look back at Problem 4. Describe a rule for determining how much money Eduardo earns by coaching.

_____

_____

6. **Stretch Your Thinking** Look back at Problem 3. Rewrite it so that Brandon spends a total of $76.

_____

_____

_____

_____

Name _____

Graph Sense

Elaine and Sandy both like lemonade. Elaine has a 16-tablespoon box of lemonade mix and uses 2 tablespoons of mix for each glass of lemonade. Sandy has an 18-tablespoon box of lemonade mix. He likes his lemonade stronger, and uses 3 tablespoons of mix for each glass of lemonade. Who will run out of mix first, Elaine or Sandy?

1. Complete the chart to find how many glasses of lemonade each person can make from her or his box of mix. Draw extra columns as needed.

Number of Glasses						
Lemonade Mix (tbsp) Elaine						
Lemonade Mix (tbsp) Sandy						

2. Use the grid at the right. Graph the related number pairs as ordered pairs. Label your graph.

3. Write Math Who runs out of lemonade mix first, Elaine or Sandy? **Explain** how you used your graph to decide.

_____

_____

_____

_____

_____

_____