

A Story of Units[®]

Eureka Math[™]

Grade 2, Module 7

Student File_A

*Contains copy-ready classwork and homework
as well as templates (including cut outs)*

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10 9 8 7 6 5 4 3 2 1

Name _____

Date _____

1. Count and categorize each picture to complete the table with tally marks.

No Legs	2 Legs	4 Legs






2. Count and categorize each picture to complete the table with numbers.

Fur	Feathers



3. Use the Animal Habitats table to answer the following questions.

Animal Habitats		
Forest	Wetlands	Grasslands
		

- How many animals have habitats on grasslands and wetlands? _____
- How many fewer animals have forest habitats than grasslands habitats? _____
- How many more animals would need to be in the forest category to have the same number as animals in the grasslands category? _____
- How many total animal habitats were used to create this table? _____

4. Use the Animal Classification table to answer the following questions about the types of animals Ms. Lee's second-grade class found in the local zoo.

Animal Classification			
Birds	Fish	Mammals	Reptiles
6	5	11	3

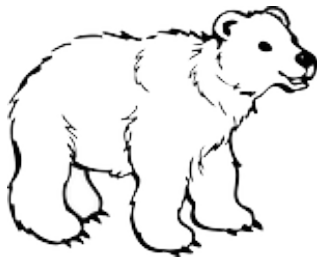
- a. How many animals are birds, fish, or reptiles? _____
- b. How many more birds and mammals are there than fish and reptiles? _____
- c. How many animals were classified? _____
- d. How many more animals would need to be added to the chart to have 35 animals classified? _____
- e. If 5 more birds and 2 more reptiles were added to the table, how many fewer reptiles would there be than birds? _____

Name _____

Date _____

1. Count and categorize each picture to complete the table with tally marks.

No Legs	2 Legs	4 Legs



2. Count and categorize each picture to complete the table with numbers.

Fur	Feathers



3. Use the Animal Habitats table to answer the following questions.

Animal Habitats		
Arctic	Forest	Grasslands
6	11	9

- How many animals live in the arctic? _____
- How many animals have habitats in the forest and grasslands? _____
- How many fewer animals have arctic habitats than forest habitats? _____
- How many more animals would need to be in the grasslands category to have the same number as the arctic and forest categories combined? _____
- How many total animal habitats were used to create this table? _____

4. Use the Animal Classification table to answer the following questions about the class pets in West Chester Elementary School.

Animal Classification			
Birds	Fish	Mammals	Reptiles
7	15	18	9

- a. How many animals are birds, fish, or reptiles? _____
- b. How many more birds and mammals are there than fish and reptiles? _____
- c. How many animals were classified? _____
- d. If 3 more birds and 4 more reptiles were added to the table, how many fewer birds would there be than reptiles? _____

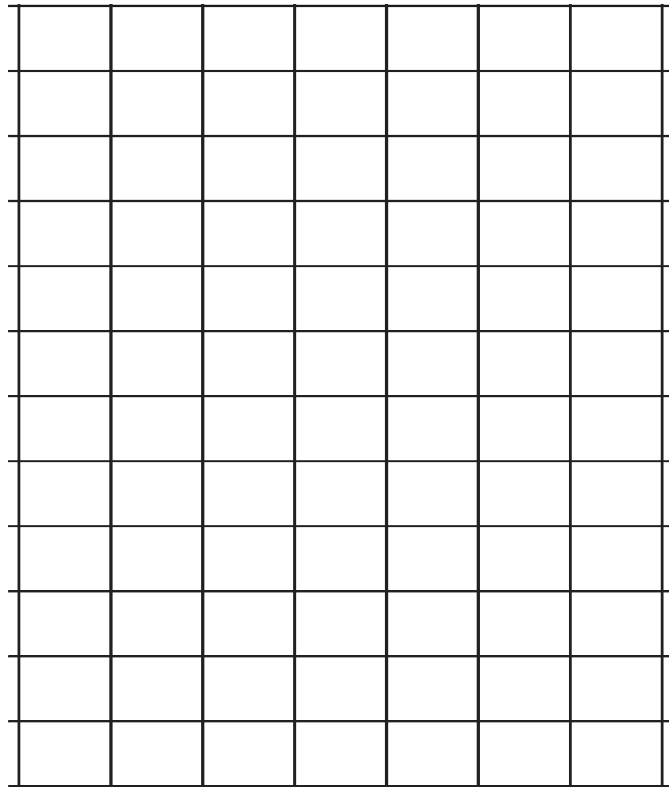
Name _____

Date _____

1. Use grid paper to create a picture graph below using data provided in the table. Then, answer the questions.

Central Park Zoo Animal Classification			
Birds	Fish	Mammals	Reptiles
6	5	11	3

Title: _____



- a. How many more animals are mammals than fish? _____
- b. How many more animals are mammals and fish than birds and reptiles? _____
- c. How many fewer animals are reptiles than mammals? _____

Legend: _____

- d. Write and answer your own comparison question based on the data.

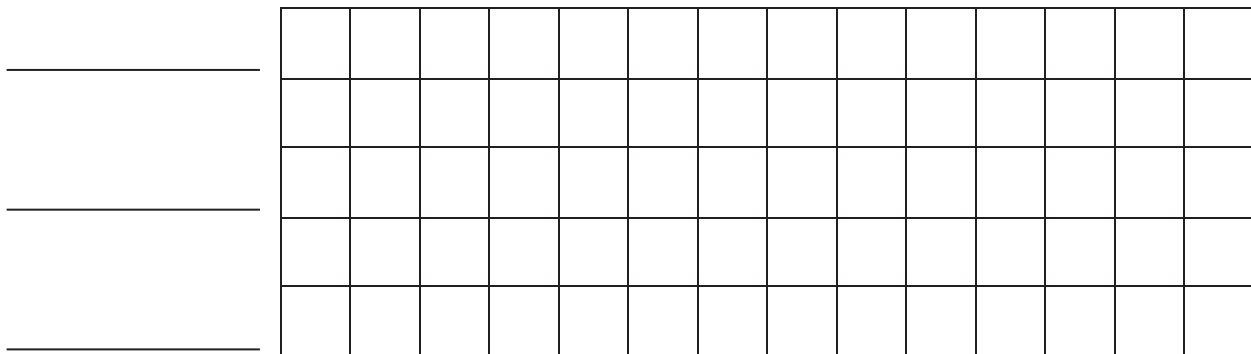
Question: _____

Answer: _____

2. Use the table below to create a picture graph in the space provided.

Animal Habitats		
Desert	Tundra	Grasslands

Title: _____



Legend: _____

- a. How many more animal habitats are in the grasslands than in the desert? _____
- b. How many fewer animal habitats are in the tundra than in the grasslands and desert combined? _____
- c. Write and answer your own comparison question based on the data.

Question: _____

Answer: _____

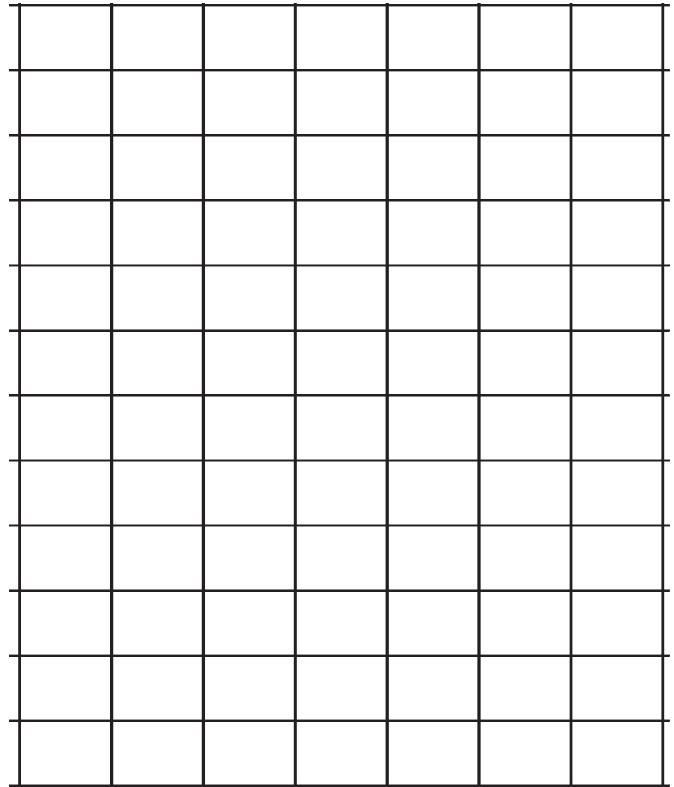
Name _____

Date _____

1. Use grid paper to create a picture graph below using data provided in the table. Then, answer the questions.

Favorite Mammals			
Tiger	Panda	Snow Leopard	Gorilla
8	11	7	12

Title: _____



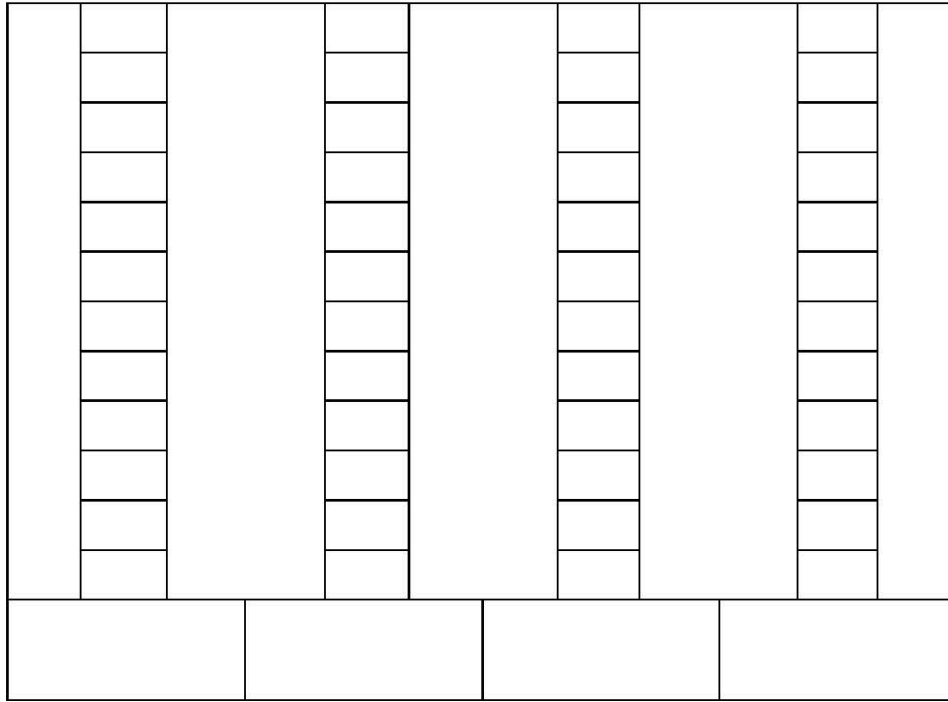
- How many more people chose gorilla as their favorite mammal than chose tiger? _____
- How many more people chose tiger and gorilla as their favorite mammals than panda and snow leopard? _____
- How many fewer people chose tiger as their favorite mammal than panda? _____

Legend: _____

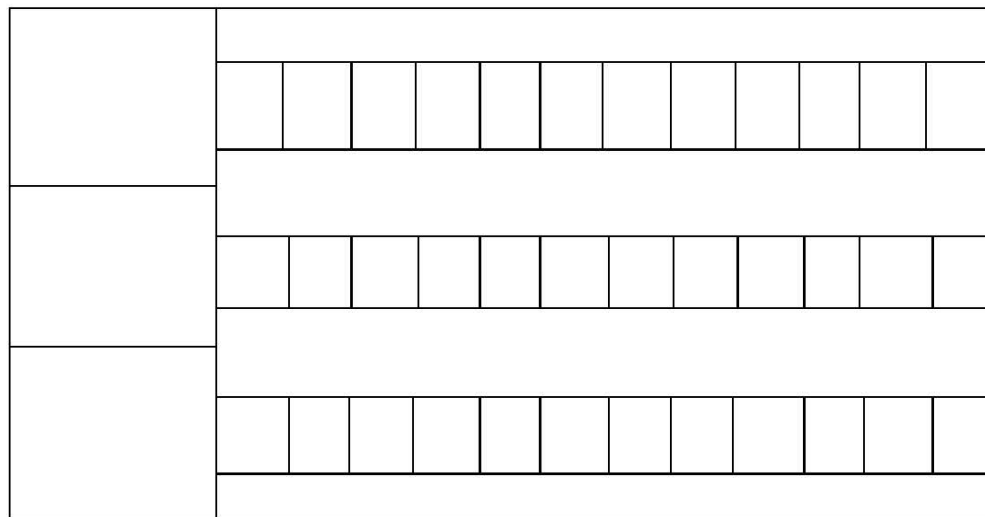
- Write and answer your own comparison question based on the data.

Question: _____

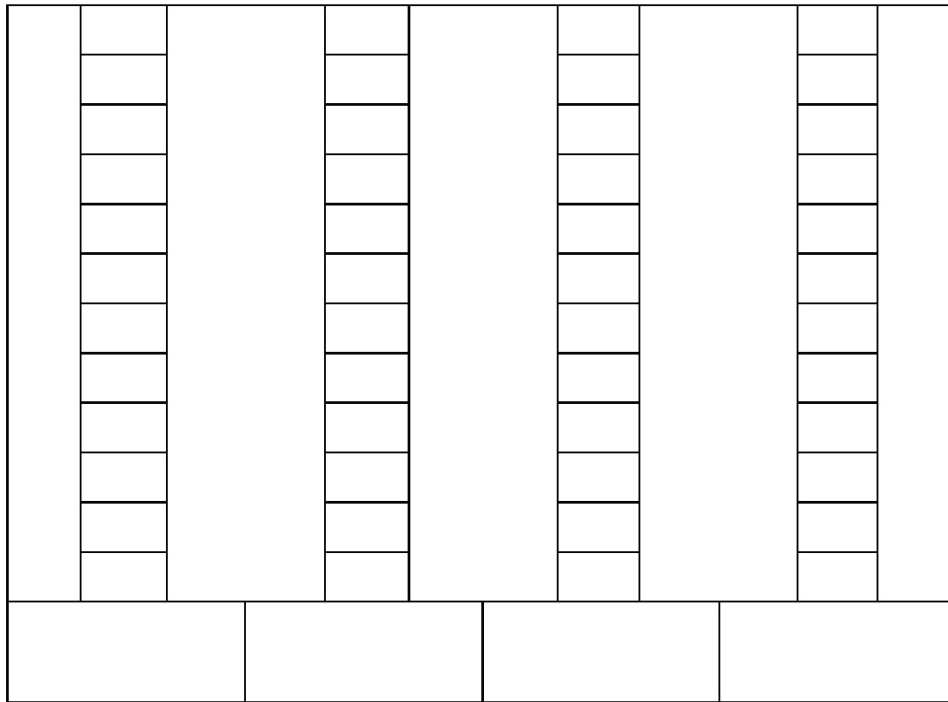
Answer: _____



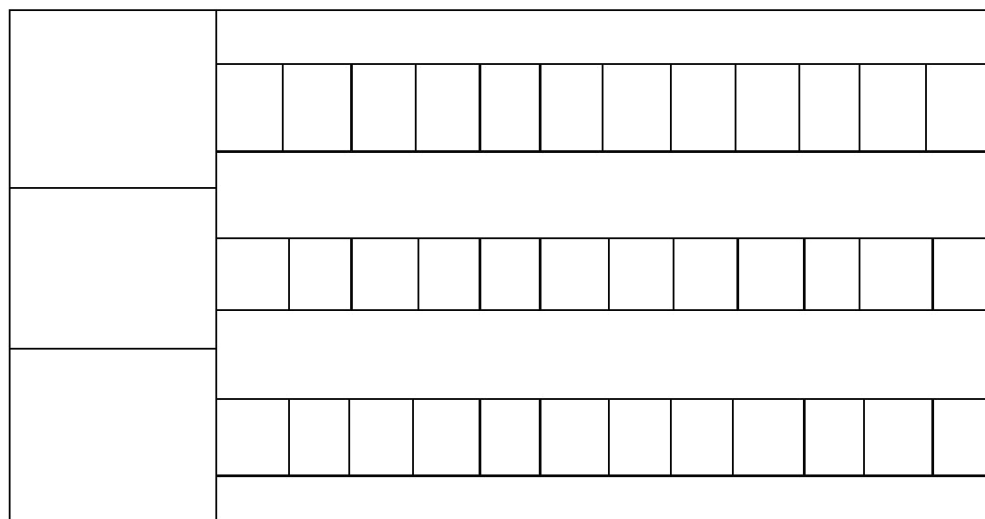
Legend: _____



Legend: _____

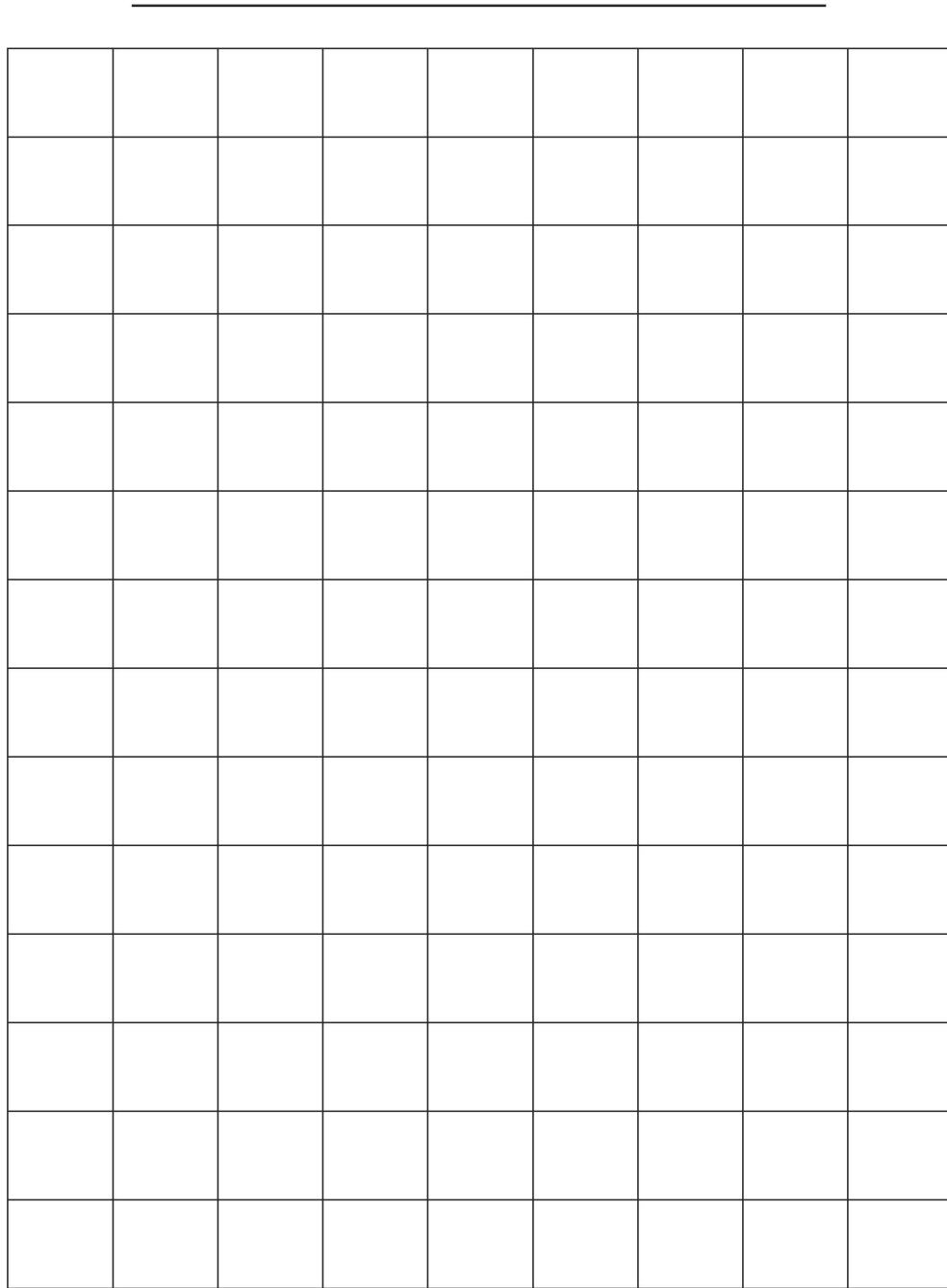


Legend: _____



Legend: _____

vertical and horizontal picture graphs



Legend: _____

vertical picture graph

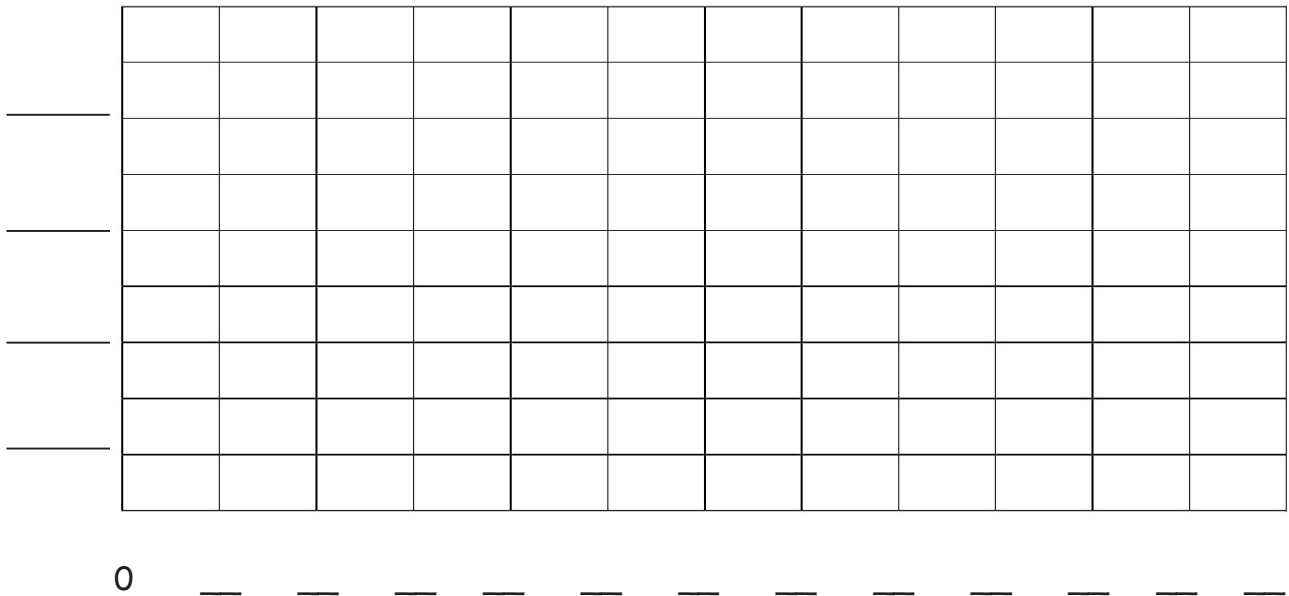
Name _____

Date _____

1. Complete the bar graph below using data provided in the table. Then, answer the questions about the data.

Animal Classification			
Birds	Fish	Mammals	Reptiles
6	5	11	3

Title: _____



- a. How many more animals are birds than reptiles? _____
- b. How many more birds and mammals are there than fish and reptiles? _____
- c. How many fewer animals are reptiles and fish than mammals? _____
- d. Write and answer your own comparison question based on the data.

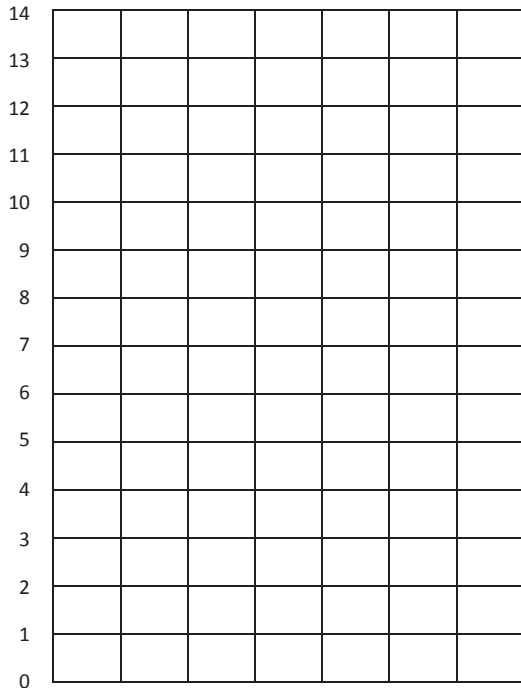
Question: _____

Answer: _____

2. Complete the bar graph below using data provided in the table.

Animal Habitats		
Desert	Arctic	Grasslands

Title: _____



- How many more animals live in the grasslands and arctic habitats combined than in the desert? _____
- If 3 more grasslands animals and 4 more arctic animals are added to the graph, how many grasslands and arctic animals would there be? _____
- If 3 animals were removed from each category, how many animals would there be? _____
- Write your own comparison question based on the data, and answer it.

Question: _____

Answer: _____

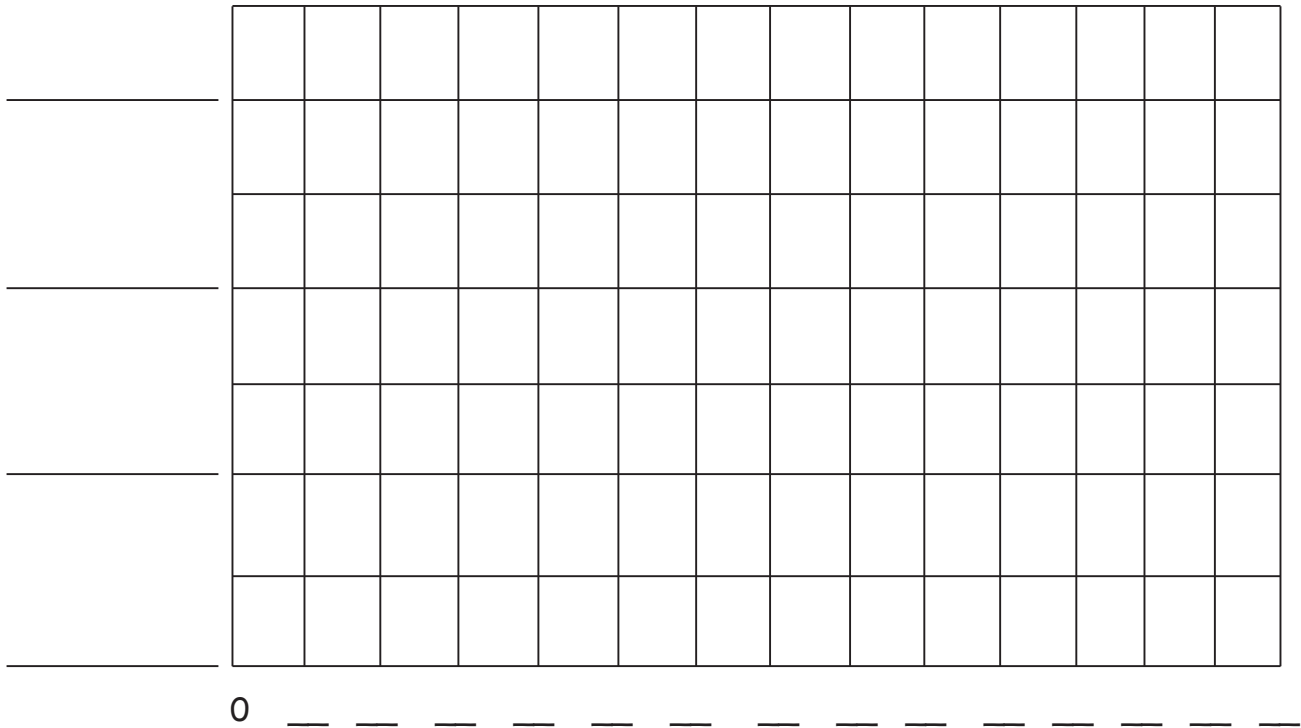
Name _____

Date _____

1. Complete the bar graph below using data provided in the table. Then, answer the questions about the data.

Various Animal Coverings at Jake's Pet Shop			
Fur	Feathers	Shells	Scales
12	9	8	11

Title: _____



- a. How many more animals have fur than shells? _____
- b. Which pair of categories has more, fur and feathers or shells and scales? (Circle one.) How much more? _____
- c. Write and answer your own comparison question based on the data.

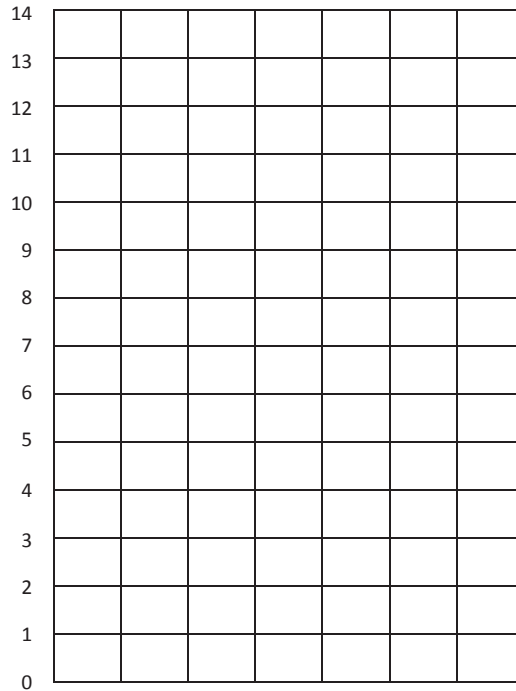
Question: _____

Answer: _____

2. Complete the bar graph below using data provided in the table.

City Shelter Animal Diets		
Meat Only	Plants Only	Meat and Plants

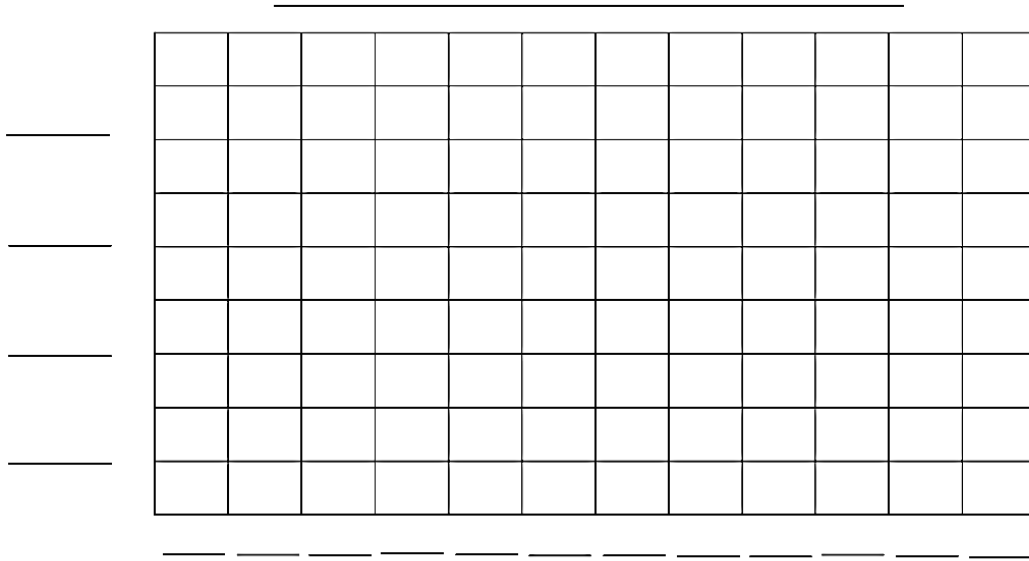
Title: _____



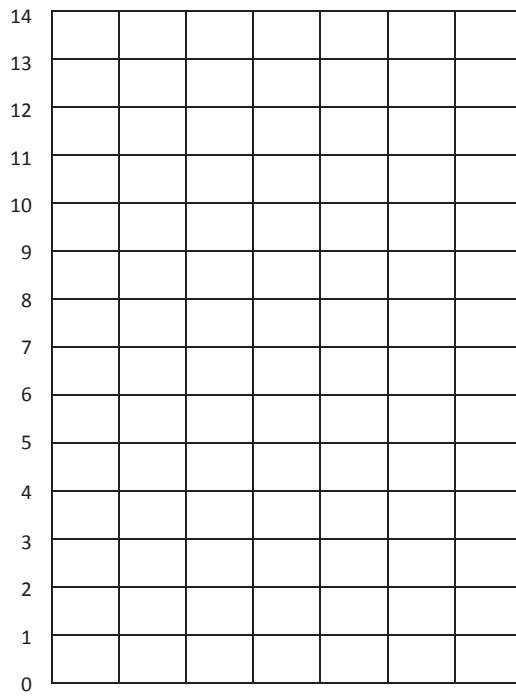
- How many total animals are in the city shelter? _____
- How many more meat- and plant-eating animals are there than meat only? _____
- If 3 animals were removed from each category, how many animals would there be? _____
- Write your own comparison question based on the data, and answer it.

Question: _____

Answer: _____



Title: _____



horizontal and vertical bar graphs

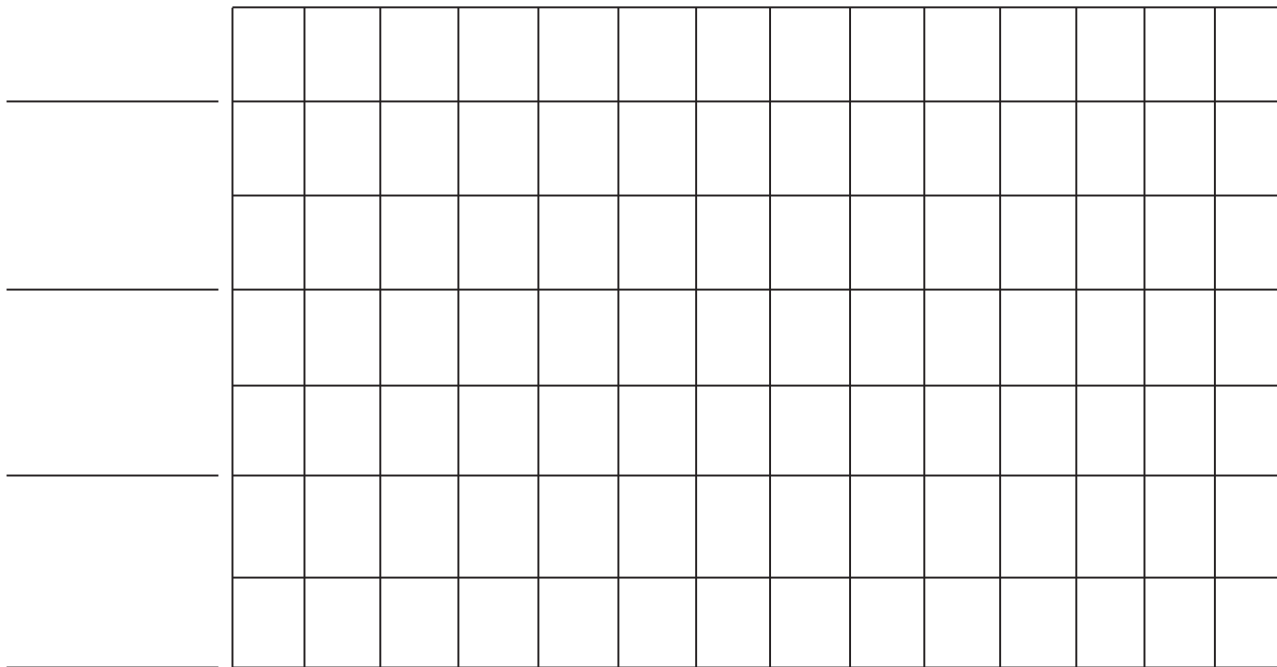
Name _____

Date _____

1. Complete the bar graph using the table with the types of bugs Alicia counted in the park. Then, answer the following questions.

Types of Bugs			
Butterflies	Spiders	Bees	Grasshoppers
5	14	12	7

Title: _____



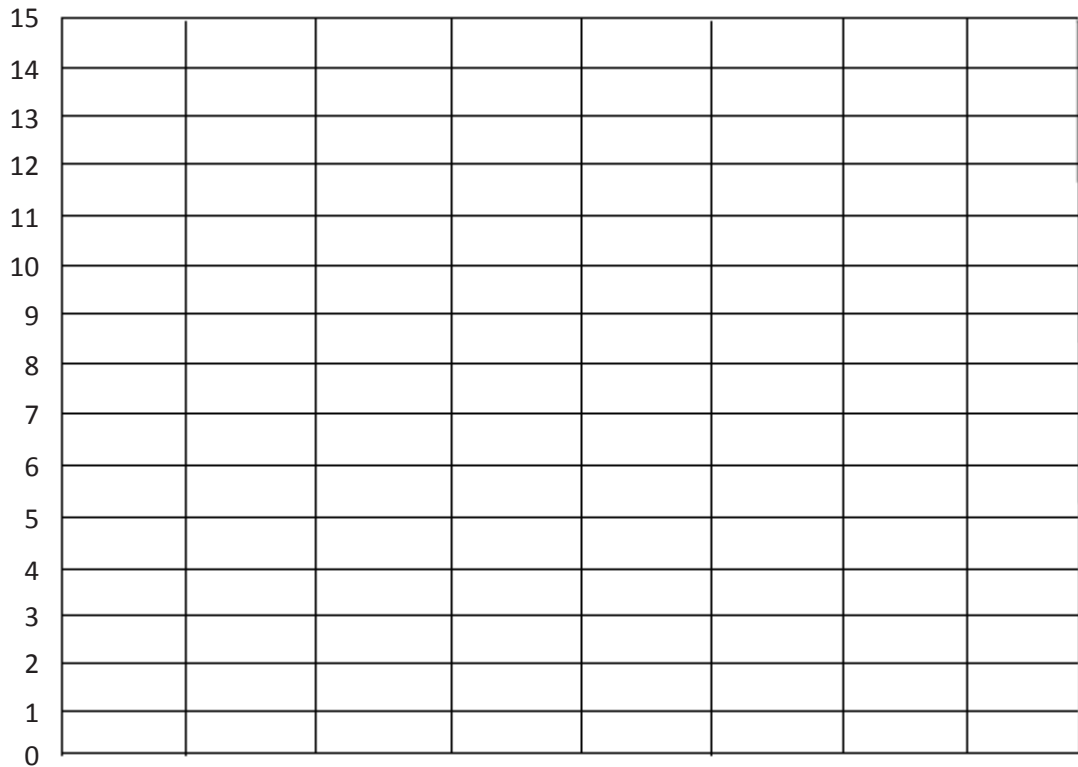
0 _____

- How many butterflies were counted in the park? _____
- How many more bees than grasshoppers were counted in the park? _____
- Which bug was counted twice as many times as grasshoppers? _____
- How many bugs did Alicia count in the park? _____
- How many fewer butterflies than bees and grasshoppers were counted in the park? _____

2. Complete the bar graph with labels and numbers using the number of farm animals on O'Brien's farm.

O'Brien's Farm Animals			
Goats	Pigs	Cows	Chickens
13	15	7	8

Title: _____



- a. How many more pigs than chickens are on O'Brien's farm? _____
- b. How many fewer cows than goats are on O'Brien's farm? _____
- c. How many fewer chickens than goats and cows are on O'Brien's farm? _____
- d. Write a comparison question that can be answered using the data on the bar graph.
- _____

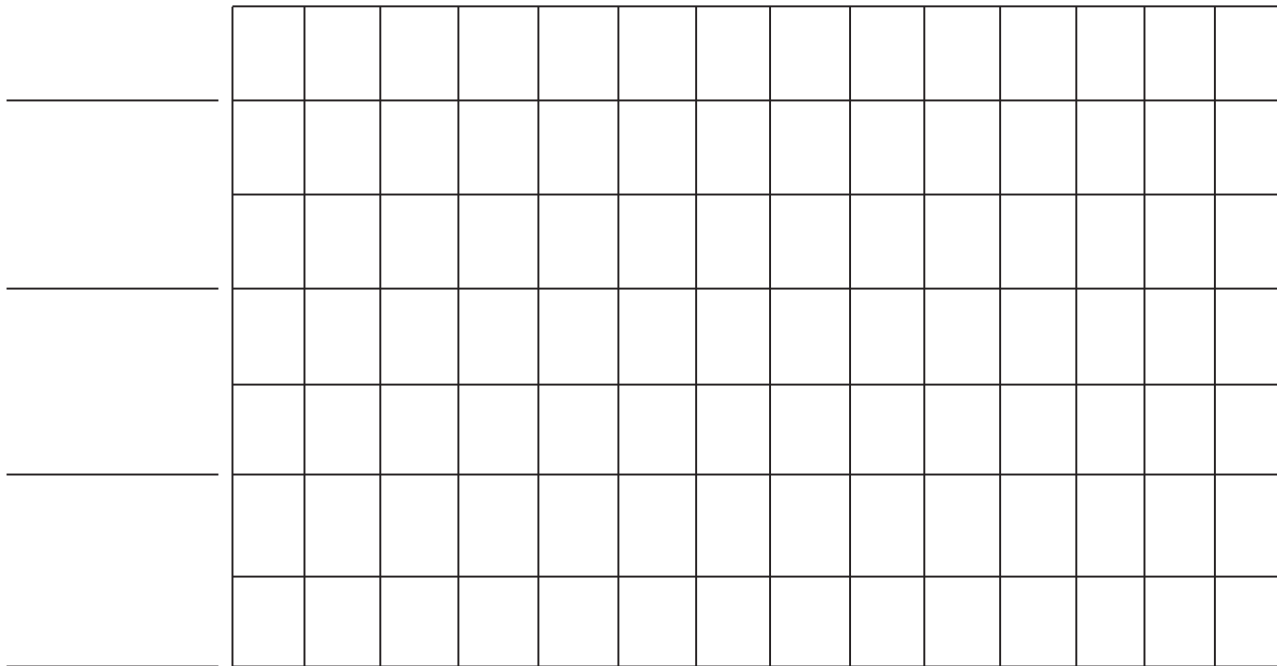
Name _____

Date _____

1. Complete the bar graph using the table with the types of reptiles at the local zoo. Then, answer the following questions.

Types of Reptiles			
Snakes	Lizards	Turtles	Tortoises
13	11	7	8

Title: _____



0 _____

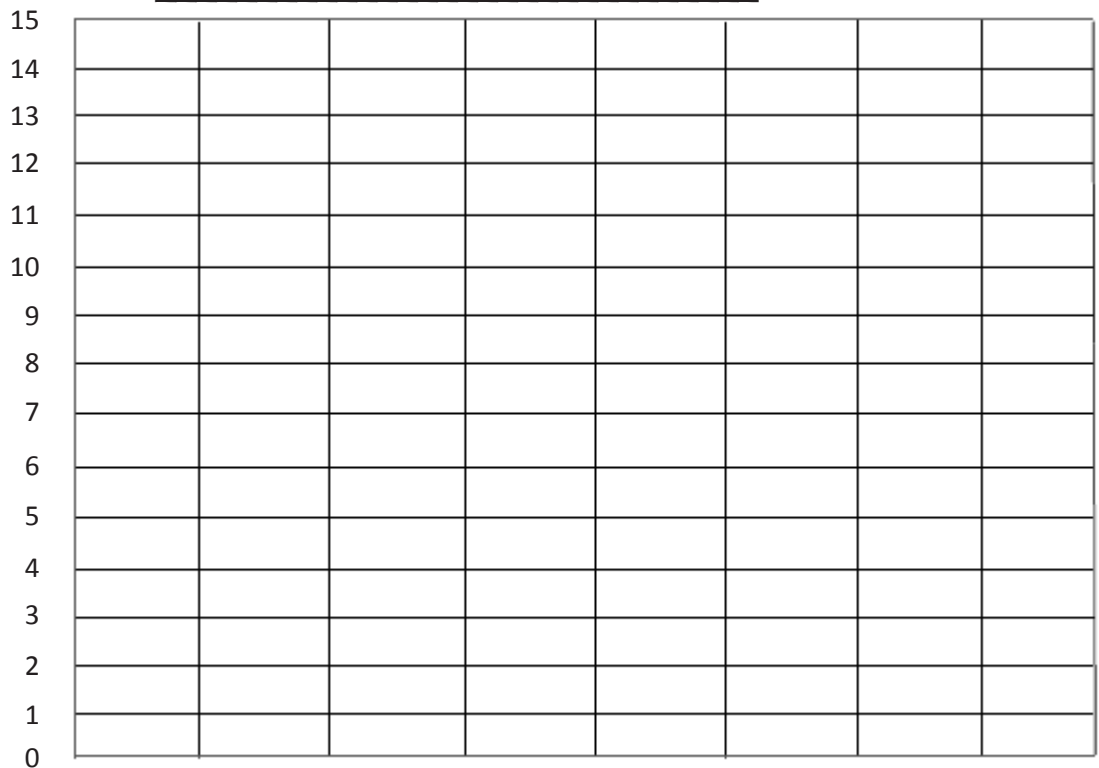
- How many reptiles are at the zoo? _____
- How many more snakes and lizards than turtles are at the zoo? _____
- How many fewer turtles and tortoises than snakes and lizards are at the zoo?

- Write a comparison question that can be answered using the data on the bar graph.

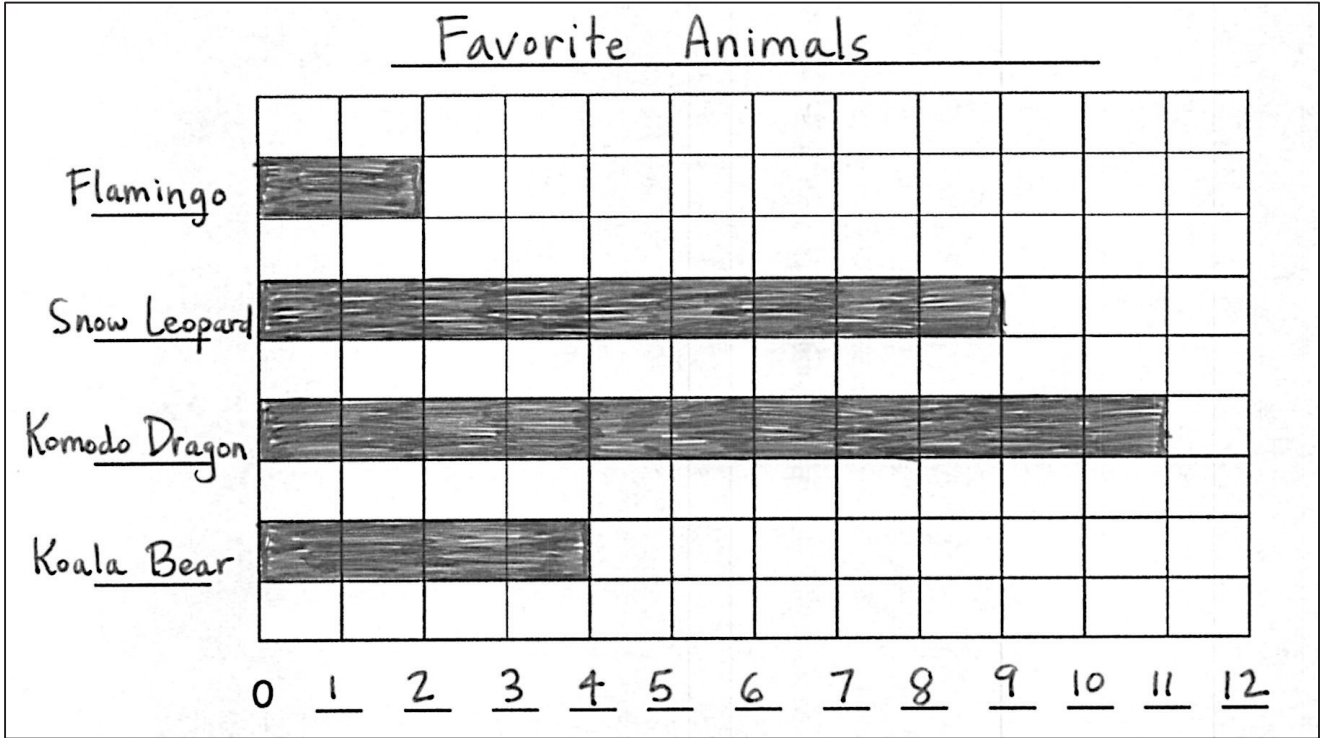
2. Complete the bar graph with labels and numbers using the number of underwater animals Emily saw while scuba diving.

Underwater Animals			
Sharks	Stingrays	Starfish	Seahorses
6	9	14	13

Title: _____



- a. How many more starfish than sharks did Emily see? _____
- b. How many fewer stingrays than seahorses did Emily see? _____
- c. Write a comparison question that can be answered using the data on the bar graph.



favorite animals bar graph

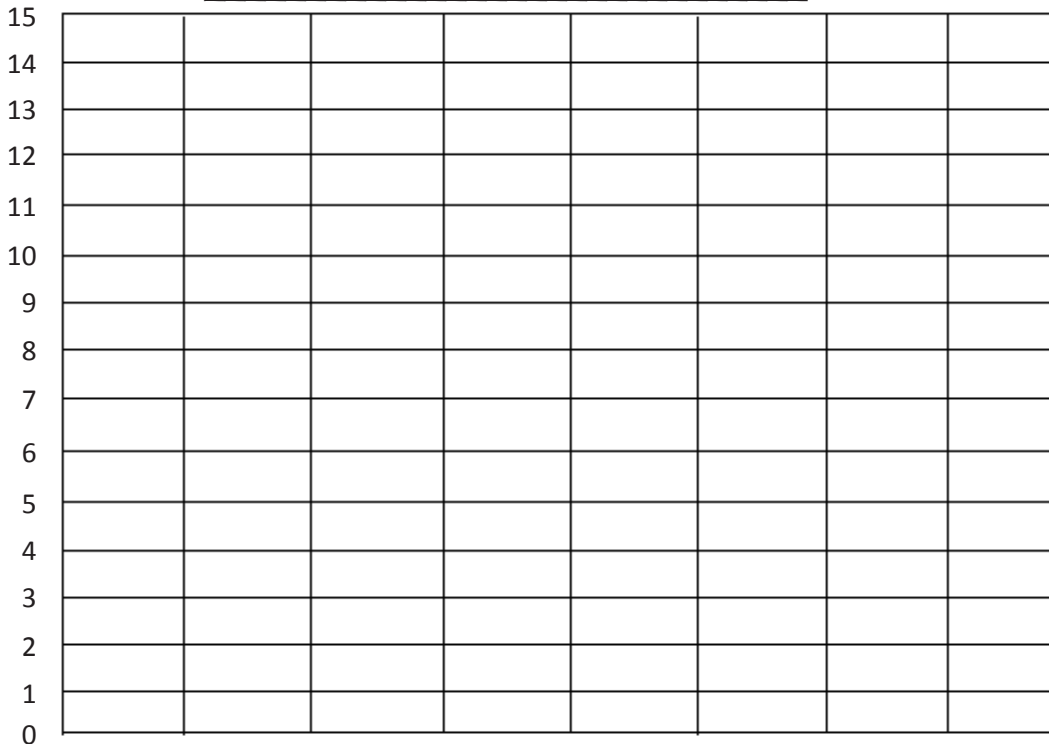
Name _____

Date _____

Callista saved pennies. Use the table to complete the bar graph. Then, answer the following questions.

Pennies Saved			
Saturday	Sunday	Monday	Tuesday
15	10	4	7

Title: _____



- How many pennies did Callista save in all? _____
- Her sister saved 18 fewer pennies. How many pennies did her sister save? _____
- How much more money did Callista save on Saturday than on Monday and Tuesday? _____
- How will the data change if Callista doubles the amount of money she saved on Sunday? _____
- Write a comparison question that can be answered using the data on the bar graph.

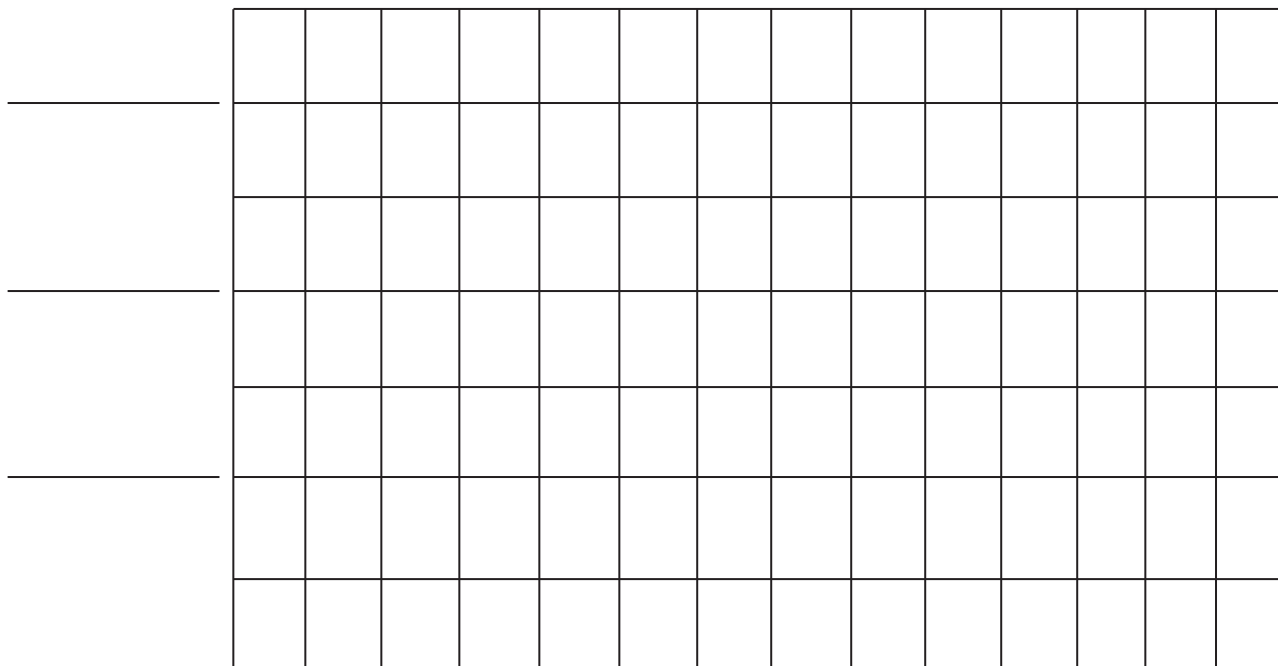
Name _____

Date _____

A group of friends counted their nickels. Use the table to complete the bar graph. Then, answer the following questions.

Amount of Nickels			
Annie	Scarlett	Remy	LaShay
5	11	8	14

Title: _____



0 _____

- How many nickels do the children have in all? _____
- What is the total value of Annie's and Remy's coins? _____
- How many fewer nickels does Remy have than LaShay? _____
- Who has less money, Annie and Scarlett or Remy and LaShay? _____
- Write a comparison question that can be answered using the data on the bar graph.

Name _____

Date _____

1. Design a survey, and collect the data.
2. Label and fill in the table.
3. Use the table to label and complete the bar graph.
4. Write questions based on the graph, and then let students use your graphs to answer them.

- a. _____
- b. _____
- c. _____
- d. _____

Name _____

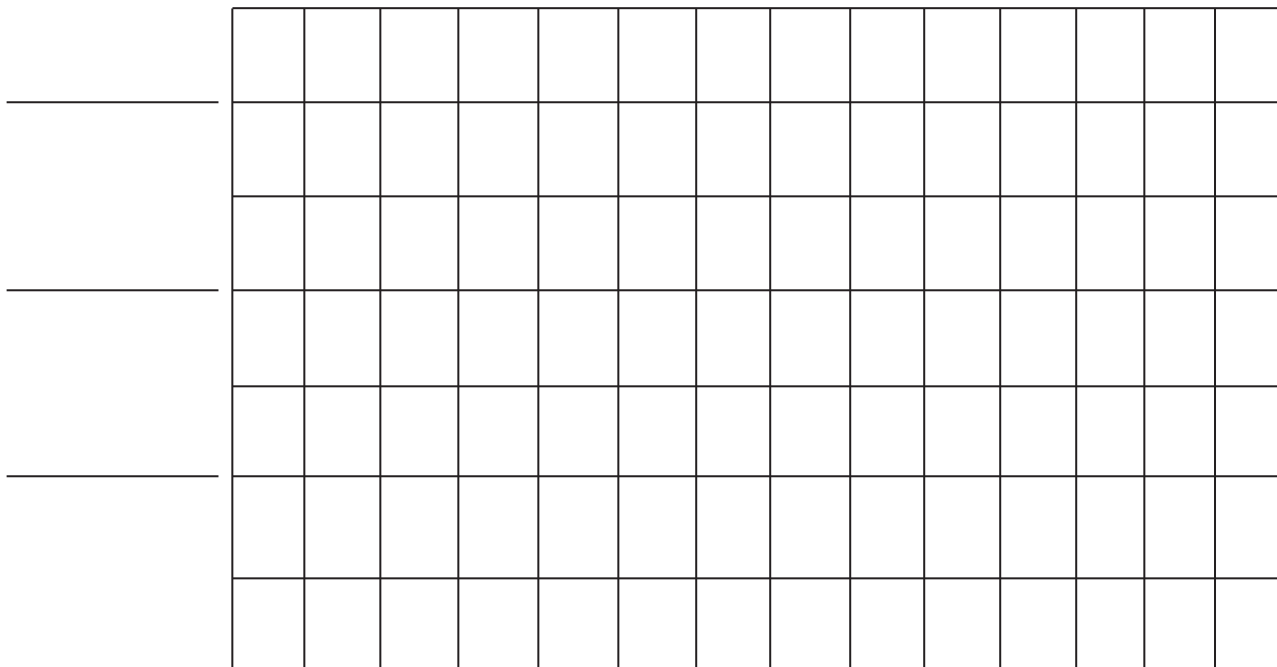
Date _____

1. Use the table to complete the bar graph. Then, answer the following questions.

Number of Dimes

Emily	Andrew	Thomas	Ava
8	12	6	13

Title: _____



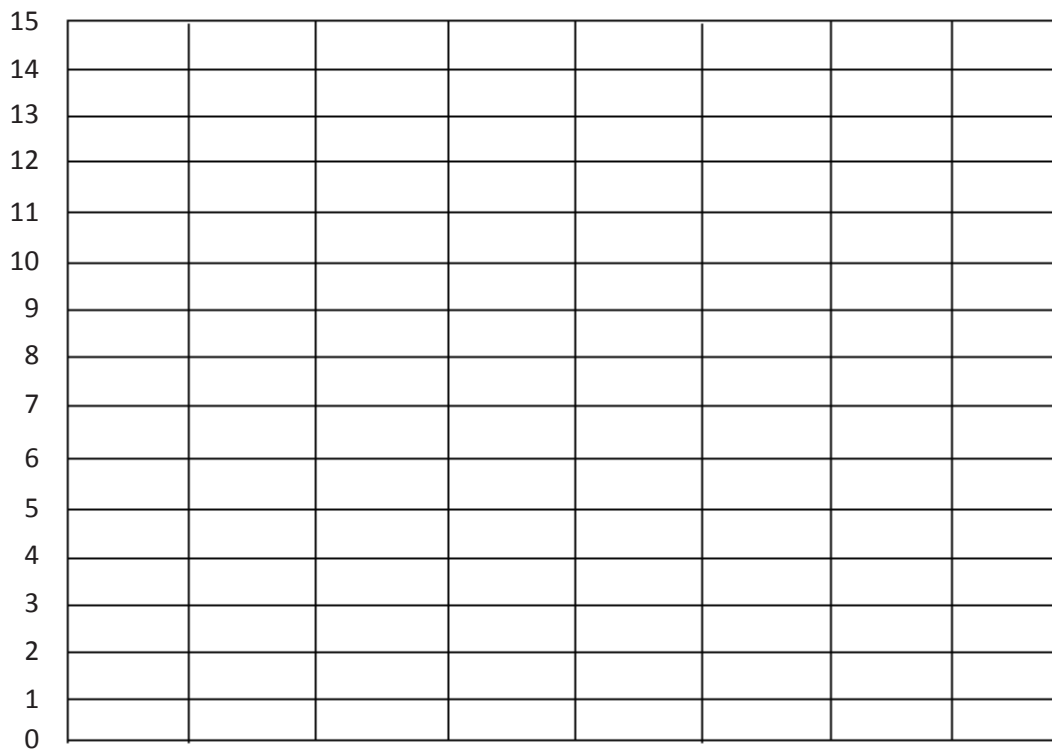
- a. How many more dimes does Andrew have than Emily? _____
- b. How many fewer dimes does Thomas have than Ava and Emily? _____
- c. Circle the pair with more dimes, Emily and Ava or Andrew and Thomas.
How many more? _____
- d. What is the total number of dimes if all the students combine all their money?

2. Use the table to complete the bar graph. Then, answer the following questions.

Number of Dimes Donated

Madison	Robin	Benjamin	Miguel
12	10	15	13

Title: _____



- How many more dimes did Miguel donate than Robin? _____
- How many fewer dimes did Madison donate than Robin and Benjamin? _____
- How many more dimes are needed for Miguel to donate the same as Benjamin and Madison? _____
- How many dimes were donated? _____

Name _____

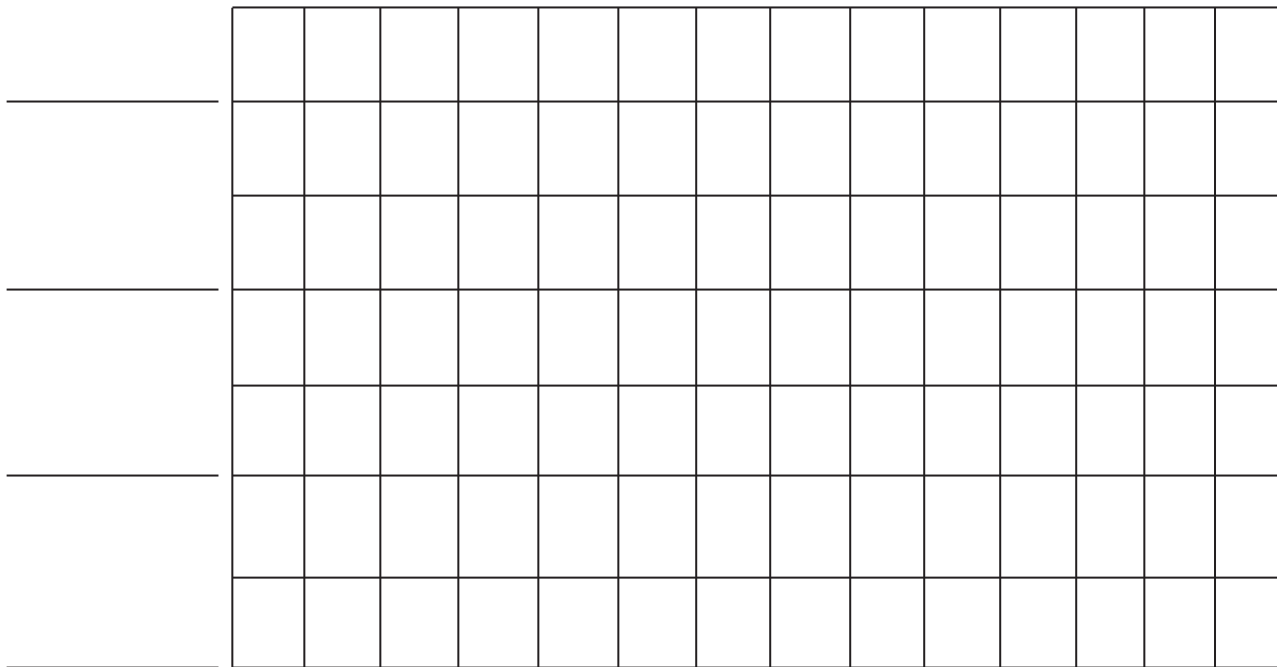
Date _____

1. Use the table to complete the bar graph. Then, answer the following questions.

Number of Nickels

Justin	Melissa	Meghan	Douglas
13	9	12	7

Title: _____



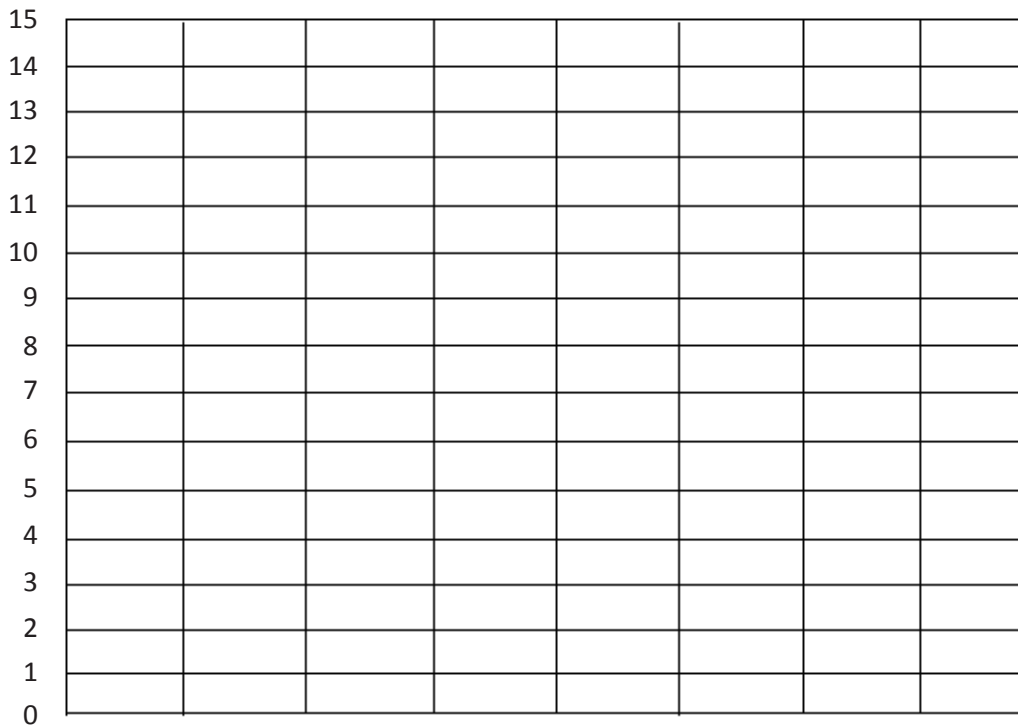
- a. How many more nickels does Meghan have than Melissa? _____
- b. How many fewer nickels does Douglas have than Justin? _____
- c. Circle the pair that has more nickels, Justin and Melissa or Douglas and Meghan.
How many more? _____
- d. What is the total number of nickels if all the students combine all their money?

2. Use the table to complete the bar graph. Then, answer the following questions.

Dimes Donated

Kylie	Tom	John	Shannon
12	10	15	13

Title: _____










- How many dimes did Shannon donate? _____
- How many fewer dimes did Kylie donate than John and Shannon? _____
- How many more dimes are needed for Tom to donate the same as Shannon and Kylie? _____
- How many dimes were donated in total? _____









Name _____

Date _____

Count or add to find the total value of each group of coins.

Write the value using the ¢ or \$ symbol.

1.		_____
2.		_____
3.		_____
4.		_____
5.		_____
6.		_____
7.		_____








<p>8.</p>  <p>_____</p>	<p>9.</p>  <p>_____</p>
<p>10.</p>  <p>_____</p>	<p>11.</p>  <p>_____</p>
<p>12.</p>  <p>_____</p>	<p>13.</p>  <p>_____</p>
<p>14.</p>  <p>_____</p>	<p>15.</p>  <p>_____</p>









Name _____

Date _____

Count or add to find the total value of each group of coins.

Write the value using the ¢ or \$ symbol.

1.		<hr/>
2.		<hr/>
3.		<hr/>
4.		<hr/>
5.		<hr/>
6.		<hr/>
7.		<hr/>

<p>8.</p>  <p>_____</p>	<p>9.</p>  <p>_____</p>
<p>10.</p>  <p>_____</p>	<p>11.</p>  <p>_____</p>
<p>12.</p>  <p>_____</p>	<p>13.</p>  <p>_____</p>
<p>14.</p>  <p>_____</p>	<p>15.</p>  <p>_____</p>

4. Emanuel had 53 cents. He gave 1 dime and 1 nickel to his brother. How much money does Emanuel have left?
5. There are 2 quarters and 14 pennies in the top drawer of the desk and 7 pennies, 2 nickels, and 1 dime in the bottom drawer. What is the total value of the money in both drawers?
6. Ricardo has 3 quarters, 1 dime, 1 nickel, and 4 pennies. He gave 68 cents to his friend. How much money does Ricardo have left?

4. Ethan had 67 cents. He gave 1 quarter and 6 pennies to his sister. How much money does Ethan have left?
5. There are 4 dimes and 3 nickels in Susan's piggy bank. Nevaeh has 17 pennies and 3 nickels in her piggy bank. What is the total value of the money in both piggy banks?
6. Tison had 1 quarter, 4 dimes, 4 nickels, and 5 pennies. He gave 57 cents to his cousin. How much money does Tison have left?





4. Michael has 4 ten-dollar bills and 7 five-dollar bills. He has 3 more ten-dollar bills and 2 more five-dollar bills than Tamara. How much money does Tamara have?
5. Antonio had 4 ten-dollar bills, 5 five-dollar bills, and 16 one-dollar bills. He put \$70 of that money in his bank account. How much money was not put in his bank account?
6. Mrs. Clark has 8 five-dollar bills and 2 ten-dollar bills in her wallet. She has 1 twenty-dollar bill and 12 one-dollar bills in her purse. How much more money does she have in her wallet than in her purse?

4. On Saturday, Mary Jo received 5 ten-dollar bills, 4 five-dollar bills, and 17 one-dollar bills. On Sunday, she received 4 ten-dollar bills, 5 five-dollar bills, and 15 one-dollar bills. How much more money did Mary Jo receive on Saturday than on Sunday?
5. Alexis has \$95. She has 2 more five-dollar bills, 5 more one-dollar bills, and 2 more ten-dollar bills than Kasai. How much money does Kasai have?
6. Kate had 2 ten-dollar bills, 6 five-dollar bills, and 21 one-dollar bills before she spent \$45 on a new outfit. How much money was not spent?

Name _____

Date _____

Write another way to make the same total value.

<p>1. 26 cents</p>  <p>2 dimes 1 nickel 1 penny is 26 cents.</p>	<p>Another way to make 26 cents:</p>
<p>2. 35 cents</p>  <p>3 dimes and 1 nickel make 35 cents.</p>	<p>Another way to make 35 cents:</p>
<p>3. 55 cents</p>  <p>2 quarters and 1 nickel make 55 cents.</p>	<p>Another way to make 55 cents:</p>
<p>4. 75 cents</p>  <p>The total value of 3 quarters is 75 cents.</p>	<p>Another way to make 75 cents:</p>

5. Gretchen has 45 cents to buy a yo-yo. Write two coin combinations she could have paid with that would equal 45 cents.

--	--

6. The cashier gave Joshua 1 quarter, 3 dimes, and 1 nickel. Write two other coin combinations that would equal the same amount of change.

--	--





7. Alex has 4 quarters. Nicole and Caleb have the same amount of money. Write two other coin combinations that Nicole and Caleb could have.

--	--

Name _____

Date _____

Draw coins to show another way to make the same total value.

<p>1. 25 cents</p>  <p>1 dime 3 nickels is 25 cents.</p>	<p>Another way to make 25 cents:</p>
<p>2. 40 cents</p>  <p>4 dimes make 40 cents.</p>	<p>Another way to make 40 cents:</p>
<p>3. 60 cents</p>  <p>2 quarters and 1 dime makes 60 cents.</p>	<p>Another way to make 60 cents:</p>
<p>4. 80 cents</p>  <p>The total value of 3 quarters 1 nickel is 80 cents.</p>	<p>Another way to make 80 cents:</p>

5. Samantha has 67 cents in her pocket. Write two coin combinations she could have that would equal the same amount.

--	--

6. The store clerk gave Jeremy 2 quarters, 3 nickels, and 4 pennies. Write two other coin combinations that would equal the same amount of change.

--	--

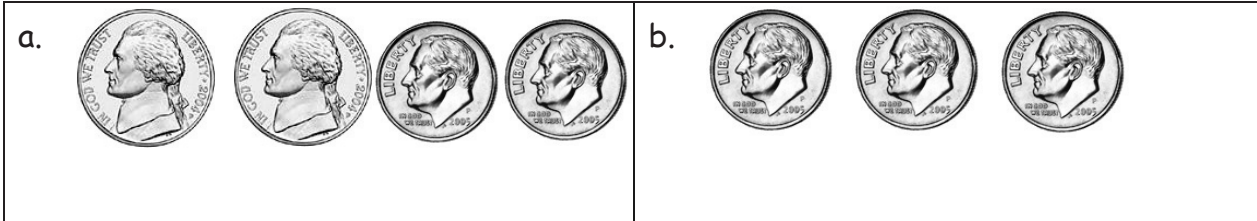
7. Chelsea has 10 dimes. Write two other coin combinations she could have that would equal the same amount.

--	--

Name _____

Date _____

1. Kayla showed 30 cents two ways. Circle the way that uses the fewest coins.



What two coins from (a) were changed for one coin in (b)?

2. Show 20¢ two ways. Use the fewest possible coins on the right below.

	<p>Fewest coins:</p>
--	----------------------

3. Show 35¢ two ways. Use the fewest possible coins on the right below.

	<p>Fewest coins:</p>
--	----------------------

4. Show 46¢ two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

5. Show 73¢ two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

6. Show 85¢ two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

7. Kayla gave three ways to make 56¢. Circle the correct ways to make 56¢, and star the way that uses the fewest coins.

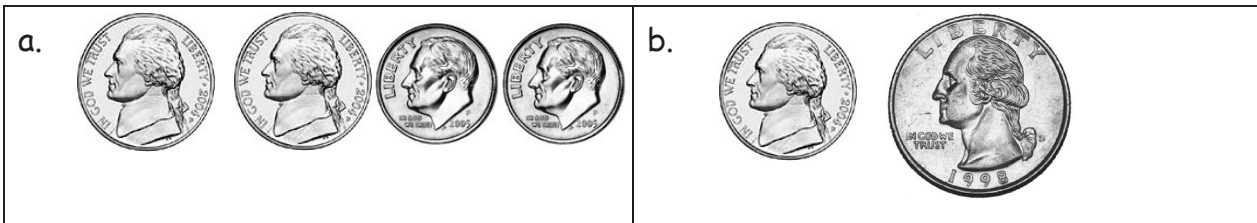
- a. 2 quarters and 6 pennies
- b. 5 dimes, 1 nickel, and 1 penny
- c. 4 dimes, 2 nickels, and 1 penny

8. Write a way to make 56¢ that uses the fewest possible coins.

Name _____

Date _____

1. Tara showed 30 cents two ways. Circle the way that uses the fewest coins.



What coins from (a) were changed for one coin in (b)?

2. Show 40¢ two ways. Use the fewest possible coins on the right below.

	<p>Fewest coins:</p>
--	----------------------

3. Show 55¢ two ways. Use the fewest possible coins on the right below.

	<p>Fewest coins:</p>
--	----------------------

4. Show 66¢ two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

5. Show 80¢ two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

6. Show \$1 two ways. Use the fewest possible coins on the right below.

	Fewest coins:
--	---------------

7. Tara made a mistake when asked for two ways to show 91¢. Circle her mistake, and explain what she did wrong.

3 quarters, 1 dime, 1 nickel, and 1 penny	Fewest coins: 9 dimes and 1 penny
---	--------------------------------------

Name _____

Date _____

1. Count up using the arrow way to complete each number sentence. Then, use your coins to show your answers are correct.

a. $45¢ + \underline{\hspace{2cm}} = 100¢$

b. $15¢ + \underline{\hspace{2cm}} = 100¢$

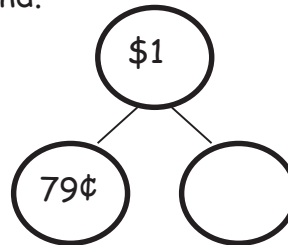
$$45 \xrightarrow{+5} \underline{\hspace{1cm}} \xrightarrow{+5} 100$$

c. $57¢ + \underline{\hspace{2cm}} = 100¢$

d. $\underline{\hspace{2cm}} + 71¢ = 100¢$

2. Solve using the arrow way and a number bond.

a. $79¢ + \underline{\hspace{2cm}} = 100¢$

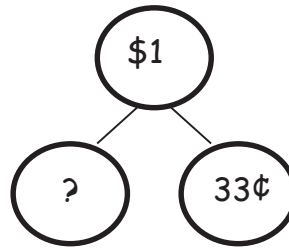


b. $64¢ + \underline{\hspace{2cm}} = 100¢$

c. $100¢ - 30¢ = \underline{\hspace{2cm}}$

3. Solve.

a. _____ + 33¢ = 100¢



b. 100¢ - 55¢ = _____

c. 100¢ - 28¢ = _____

d. 100¢ - 43¢ = _____

e. 100¢ - 19¢ = _____

Name _____

Date _____

1. Count up using the arrow way to complete each number sentence. Then, use coins to check your answers, if possible.

a. $25¢ + \underline{\hspace{2cm}} = 100¢$

b. $45¢ + \underline{\hspace{2cm}} = 100¢$

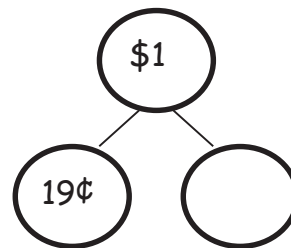
$$25 \xrightarrow{+5} \underline{\hspace{1cm}} \xrightarrow{+5} 100$$

c. $62¢ + \underline{\hspace{2cm}} = 100¢$

d. $\underline{\hspace{2cm}} + 79¢ = 100¢$

2. Solve using the arrow way and a number bond.

a. $19¢ + \underline{\hspace{2cm}} = 100¢$



b. $77¢ + \underline{\hspace{2cm}} = 100¢$

c. $100¢ - 53¢ = \underline{\hspace{2cm}}$

3. Solve.

a. _____ + 38¢ = 100¢

b. 100¢ - 65¢ = _____

c. 100¢ - 41¢ = _____

d. 100¢ - 27¢ = _____

e. 100¢ - 14¢ = _____

4. The puzzle Casey wants costs \$1. She has 6 nickels, 1 dime, and 11 pennies. How much more money does she need to buy the puzzle?

5. Garret found 19 cents in the sofa and 34 cents under his bed. How much more money will he need to find to have \$1?

6. Kelly has 38 fewer cents than Molly. Molly has \$1. How much money does Kelly have?

7. Mario has 41 more cents than Ryan. Mario has \$1. How much money does Ryan have?

4. Jackie bought a sweater at the store for \$42. She had 3 five-dollar bills and 6 one-dollar bills left over. How much money did she have before buying the sweater?
5. Akio found 18 cents in his pocket. He found 6 more coins in his other pocket. Altogether he has 73 cents. What were the 6 coins he found in his other pocket?
6. Mary found 98 cents in her piggy bank. She counted 1 quarter, 8 pennies, 3 dimes, and some nickels. How many nickels did she count?

4. Monique saved 2 ten-dollar bills, 4 five-dollar bills, and 15 one-dollar bills. Harry saved \$16 more than Monique. How much money does Harry have saved?
5. Ryan went shopping with 3 twenty-dollar bills, 3 ten-dollar bills, 1 five-dollar bill, and 9 one-dollar bills. He spent 59 dollars on a video game. How much money does he have left?
6. Heather had 3 ten-dollar bills and 4 five-dollar bills left after buying a new pair of sneakers for \$29. How much money did she have before buying the sneakers?

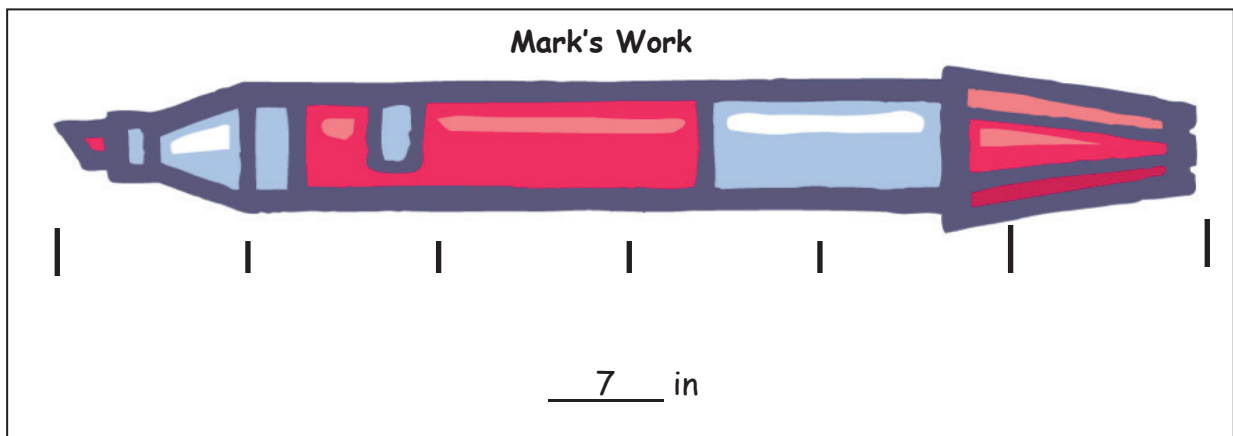
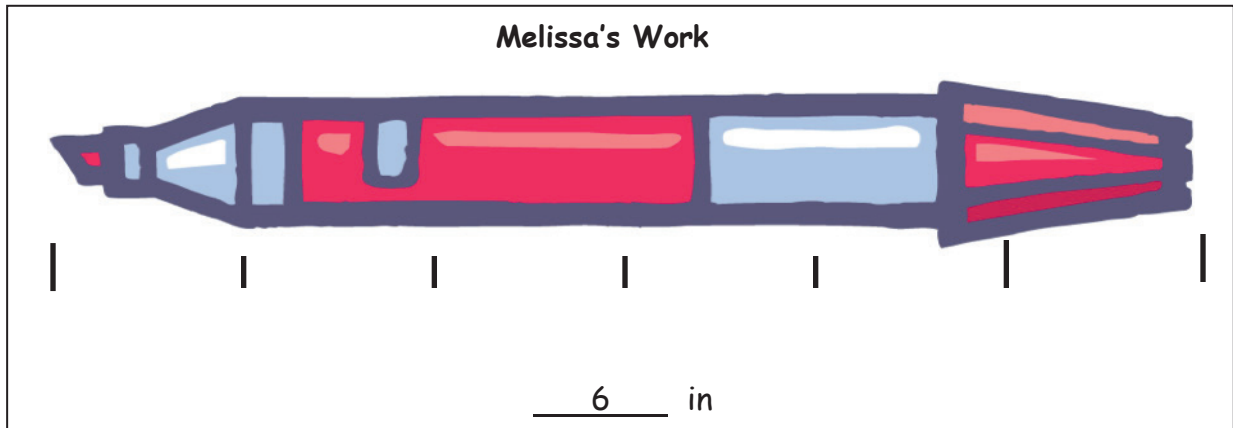
Name _____

Date _____

1. Measure the objects below with an inch tile. Record the measurements in the table provided.

Object	Measurement
Pair of scissors	
Marker	
Pencil	
Eraser	
Length of worksheet	
Width of worksheet	
Length of desk	
Width of desk	

2. Mark and Melissa both measured the same marker with an inch tile but came up with different lengths. Circle the student work that is correct, and explain why you chose that work.



Explanation:

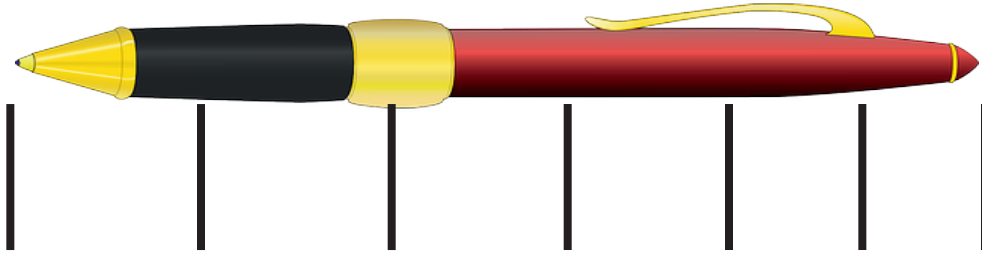
Name _____

Date _____

1. Measure these objects found in your home with an inch tile. Record the measurements in the table provided.

Object	Measurement
Length of a kitchen fork	
Height of a juice glass	
Length across the center of a plate	
Length of the refrigerator	
Length of a kitchen drawer	
Height of a can	
Length of a picture frame	
Length of a remote control	

2. Norberto begins measuring his pen with his inch tile. He marks off where each tile ends. After two times, he decides this process is taking too long and starts to guess where the tile would end and then marks it.



Explain why Norberto's answer will not be correct.

3. Use your inch tile to measure the pen. How many inch tiles long is the pen?

Name _____

Date _____

Use your ruler to measure the length of the objects below in inches. Using your ruler, draw a line that is the same length as each object.

1. a. A pencil is _____ inches.
b. Draw a line that is the same length as the pencil.

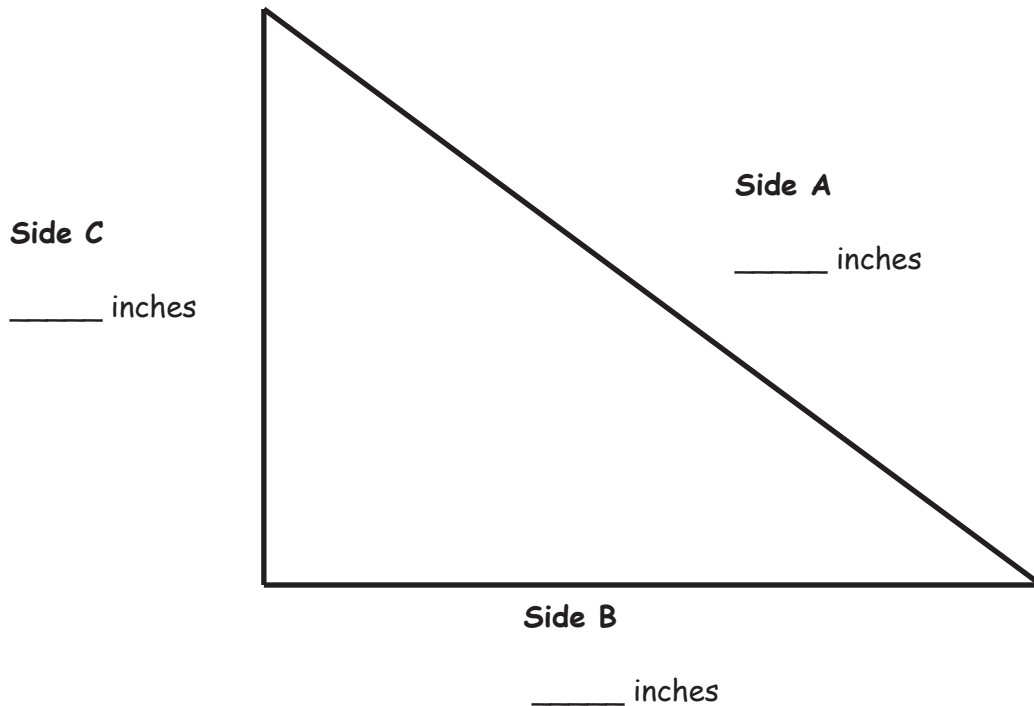
2. a. An eraser is _____ inches.
b. Draw a line that is the same length as the eraser.

3. a. A crayon is _____ inches.
b. Draw a line that is the same length as the crayon.

4. a. A marker is _____ inches.
b. Draw a line that is the same length as the marker.

5. a. What is the longest item that you measured? _____
b. How long is the longest item? _____ inches
c. How long is the shortest item? _____ inches
d. What is the difference in length between the longest and the shortest items?
_____ inches
e. Draw a line that is the same as the length you found in (d).

6. Measure and label the length of each side of the triangle using your ruler.



- Which side is the shortest? Side A Side B Side C
- What is the length of Side A? _____ inches
- What is the length of Sides C and B together? _____ inches
- What is the difference between the shortest and longest sides?
_____ inches

7. Solve.

- _____ inches = 1 foot
- 5 inches + _____ inches = 1 foot
- _____ inches + 4 inches = 1 foot

Name _____

Date _____

Measure the length of each household object with your ruler, and then use your ruler to draw a line equal to the length of each object in the space provided.

1. a. A dinner fork is _____ inches.
b. Draw a line that is the same length as the fork.

2. a. A tablespoon is _____ inches.
b. Draw a line that is the same length as the tablespoon.

Measure two other household objects.

3. a. _____ is _____ inches.
b. Draw a line that is the same length as the _____.

4. a. _____ is _____ inches.
b. Draw a line that is the same length as the _____.

5. a. What was the longest object you measured? _____
b. What was the shortest object you measured? _____
c. The difference between the longest object and the shortest object is _____ inches.

6. Measure and label the length of each side of each shape in inches using your ruler.



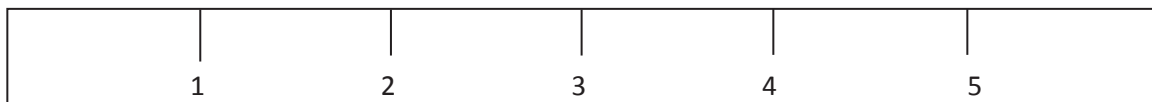
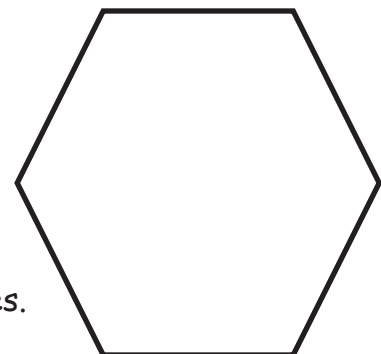
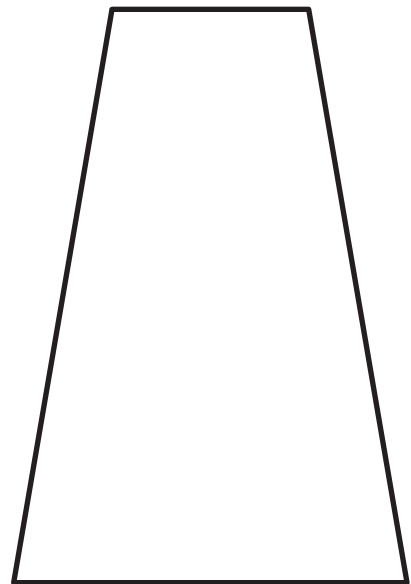
- a. The longer side of the rectangle is _____ inches.
- b. The shorter side of the rectangle is _____ inches.
- c. The longer side of the rectangle is _____ inches longer than the shorter side of the rectangle.

- d. The shortest side of the trapezoid is _____ inches.
- e. The longest side of the trapezoid is _____ inches.

- f. The longest side of the trapezoid is _____ inches longer than the shortest side.

- g. Each side of the hexagon is _____ inches.

- h. The total length around the hexagon is _____ inches.

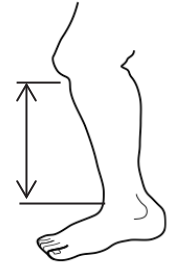


Center 1: Measure and Compare Shin Lengths

Choose a measuring unit to measure the shins of everyone in your group. Measure from the top of the foot to the bottom of the knee.

I chose to measure using _____.

Record the results in the table below. Include the units.



Name	Length of Shin

What is the difference in length between the longest and shortest shins? Write a number sentence and statement to show the difference between the two lengths.

Center 2: Compare Lengths to a Yardstick

Fill in your estimate for each object using the words *more than*, *less than*, or *about the same length as*. Then, measure each object with a yardstick, and record the measurement on the chart.

- The length of a book is _____ the yardstick.
- The height of the door is _____ the yardstick.
- The length of a student desk is _____ the yardstick.

Object	Measurement
Length of book	
Height of door	
Length of student desk	

What is the length of 4 student desks pushed together with no gaps in between? Use the RDW process to solve on the back of this paper.

Center 3: Choose the Units to Measure Objects

Name 4 objects in the classroom. Circle which unit you would use to measure each item, and record the measurement in the chart.

Object	Length of the Object
	inches/feet/yards
	inches/feet/yards
	inches/feet/yards
	inches/feet/yards

Billy measures his pencil. He tells his teacher it is 7 feet long. Use the back of this paper to explain how you know that Billy is incorrect and how he can change his answer to be correct.

Center 4: Find Benchmarks

Look around the room to find 2 or 3 objects for each benchmark length. Write each object in the chart, and record the exact length.

Objects That Are About an Inch	Objects That Are About a Foot	Objects That Are About a Yard
1. _____ inches	1. _____ inches	1. _____ inches
2. _____ inches	2. _____ inches	2. _____ inches
3. _____ inches	3. _____ inches	3. _____ inches

Center 5: Choose a Tool to Measure

Circle the tool used to measure each object. Then, measure and record the length in the chart. Circle the unit.

Object	Measurement Tool	Measurement
Length of the rug	12-inch ruler / yardstick	_____ inches/feet
Textbook	12-inch ruler / yardstick	_____ inches/feet
Pencil	12-inch ruler / yardstick	_____ inches/feet
Length of the chalkboard	12-inch ruler / yardstick	_____ inches/feet
Pink eraser	12-inch ruler / yardstick	_____ inches/feet

Sera's jump rope is the length of 6 textbooks. On the back of this paper, make a tape diagram to show the length of Sera's jump rope. Then, write a repeated addition sentence using the textbook measurement from the chart to find the length of Sera's jump rope.

Name _____

Date _____

1. Circle the unit that would best measure each object.

Height of a door	inch / foot / yard
Textbook	inch / foot / yard
Pencil	inch / foot / yard
Length of a car	inch / foot / yard
Length of your street	inch / foot / yard
Paint brush	inch / foot / yard

2. Circle the correct estimate for each object.

- a. The height of a flagpole is more than / less than / about the same as the length of a yardstick.
- b. The width of a door is more than / less than / about the same as the length of a yardstick.
- c. The length of a laptop computer is more than / less than / about the same as the length of a 12-inch ruler.
- d. The length of a cell phone is more than / less than / about the same as the length of a 12-inch ruler.

3. Name 3 objects in your classroom. Decide which unit you would use to measure that object. Record it in the chart in a full statement.

Object	Unit
a.	I would use _____ to measure the length of _____.
b.	
c.	

4. Name 3 objects in your home. Decide which unit you would use to measure that object. Record it in the chart in a full statement.

Object	Unit
a.	I would use _____ to measure the length of _____.
b.	
c.	

Name _____

Date _____

Estimate the length of each item by using a mental benchmark. Then, measure the item using feet, inches, or yards.

Item	Mental Benchmark	Estimation	Actual Length
a. Width of the door			
b. Width of the white board or chalkboard			
c. Height of a desk			
d. Length of a desk			
e. Length of a reading book			

Item	Mental Benchmark	Estimation	Actual Length
f. Length of a crayon			
g. Length of the room			
h. Length of a pair of scissors			
i. Length of the window			

Name _____

Date _____

Estimate the length of each item by using a mental benchmark. Then, measure the item using feet, inches, or yards.

Item	Mental Benchmark	Estimation	Actual Length
a. Length of a bed			
b. Width of a bed			
c. Height of a table			
d. Length of a table			
e. Length of a book			

Item	Mental Benchmark	Estimation	Actual Length
f. Length of your pencil			
g. Length of a refrigerator			
h. Height of a refrigerator			
i. Length of a sofa			

Name _____

Date _____

Measure the lines in inches and centimeters. Round the measurements to the nearest inch or centimeter.

1. _____

_____ cm

_____ in

2. _____

_____ cm

_____ in

3. _____

_____ cm

_____ in

4. _____

_____ cm

_____ in

5. a. Did you use more inches or more centimeters when measuring the lines above?

b. Write a sentence to explain why you used more of that unit.

6. Draw lines with the measurements below.

a. 3 centimeters long

b. 3 inches long

7. Thomas and Chris both measured the crayon below but came up with different answers. Explain why both answers are correct.



Thomas: 8 cm

Chris: 3 in

Explanation: _____

Name _____

Date _____

Measure the lines in inches and centimeters. Round the measurements to the nearest inch or centimeter.

1. _____

_____ cm

_____ in

2. _____

_____ cm

_____ in

3. _____

_____ cm

_____ in

4. _____

_____ cm

_____ in

5. a. Draw a line that is 5 centimeters in length.
- b. Draw a line that is 5 inches in length.
6. a. Draw a line that is 7 inches in length.
- b. Draw a line that is 7 centimeters in length.
7. Takeesha drew a line 9 centimeters long. Damani drew a line 4 inches long. Takeesha says her line is longer than Damani's because 9 is greater than 4. Explain why Takeesha might be wrong.
-
-
-
8. Draw a line that is 9 centimeters long and a line that is 4 inches long to prove that Takeesha is wrong.

Name _____

Date _____

Measure each set of lines in inches, and write the length on the line. Complete the comparison sentence.

1. Line A _____

Line B _____

Line A measured about _____ inches. Line B measured about _____ inches.

Line A is about _____ inches **longer** than Line B.

2. Line C _____

Line D _____

Line C measured about _____ inches. Line D measured about _____ inches.

Line C is about _____ inches **shorter** than Line D.

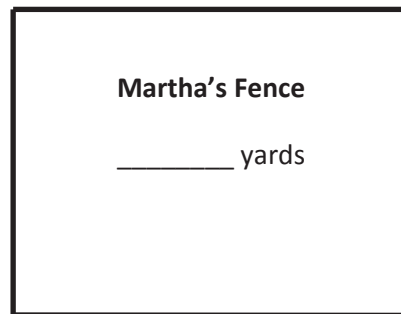
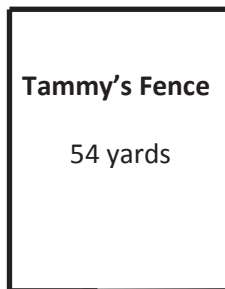
3. Solve the following problems:

a. $32 \text{ ft} + \underline{\hspace{2cm}} = 87 \text{ ft}$

b. $68 \text{ ft} - 29 \text{ ft} = \underline{\hspace{2cm}}$

c. $\underline{\hspace{2cm}} - 43 \text{ ft} = 18 \text{ ft}$

4. Tammy and Martha both built fences around their properties. Tammy's fence is 54 yards long. Martha's fence is 29 yards longer than Tammy's.



a. How long is Martha's fence? $\underline{\hspace{2cm}}$ yards

b. What is the total length of both fences? $\underline{\hspace{2cm}}$ yards

Name _____ Date _____

Measure each set of lines in inches, and write the length on the line. Complete the comparison sentence.

1. Line A _____

Line B _____

Line A measured about _____ inches. Line B measured about _____ inches.

Line A is about _____ inches **longer** than Line B.

2. Line C _____

Line D _____

Line C measured about _____ inches. Line D measured about _____ inches.

Line D is about _____ inches **shorter** than Line C.

3. Solve. Check your answers with a related addition or subtraction sentence.

a. $8 \text{ inches} - 5 \text{ inches} = \underline{\hspace{2cm}}$ inches

$\underline{\hspace{2cm}}$ inches + 5 inches = 8 inches

b. 8 centimeters + _____ centimeters = 19 centimeters

c. 17 centimeters - 8 centimeters = _____ centimeters

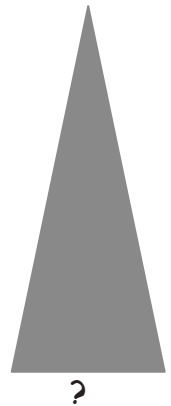
d. _____ centimeters + 6 centimeters = 18 centimeters

e. 2 inches + _____ inches = 7 inches

f. 12 inches - _____ = 8 inches

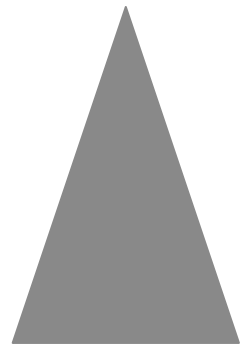
4. Maria had 96 inches of ribbon. She used 36 inches to wrap a small gift and 48 inches to wrap a larger gift. How much ribbon did she have left?

5. The total length of all three sides of a triangle is 96 feet. The triangle has two sides that are the same length. One of the equal sides measures 40 feet. What is the length of the side that is not equal?



6. The length of one side of a square is 4 yards. What is the combined length of all four sides of the square?

4. Janine knitted 12 inches of a scarf on Friday and 36 inches on Saturday. She wants the scarf to be 72 inches long. How many more inches does she need to knit?
5. The total length of all three sides of a triangle is 120 feet. Two sides of the triangle are the same length. One of the equal sides measures 50 feet. What is the length of the side that is not equal?



?

6. The length of one side of a square is 3 yards. What is the combined length of all four sides of the square?

Name _____

Date _____

Find the value of the point on each part of the meter strip marked by a letter.
For each number line, one unit is the distance from one hash mark to the next.

1.



Each unit has a length of _____ centimeters.

A = _____

2.



Each unit has a length of _____ centimeters.

B = _____

3.



Each unit on the meter strip has a length of _____ centimeters.

C = _____

4. Each hash mark represents 5 more on the number line.



D = _____

What is the difference between the two endpoints? _____.

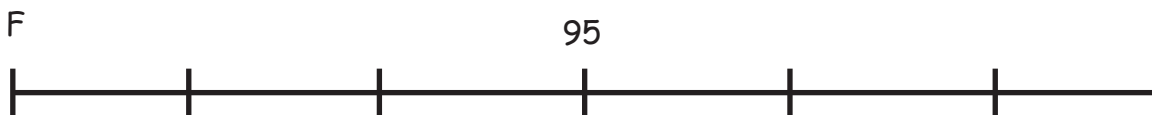
5. Each hash mark represents 10 more on the number line.



E = _____

What is the difference between the two endpoints? _____.

6. Each hash mark represents 10 more on the number line.



F = _____

What is the difference between the two endpoints? _____.

Name _____

Date _____

Find the value of the point on each part of the meter strip marked by a letter.
For each number line, one unit is the distance from one hash mark to the next.

1.



Each unit has a length of _____ centimeters.

A = _____



Each unit has a length of _____ centimeters.

B = _____

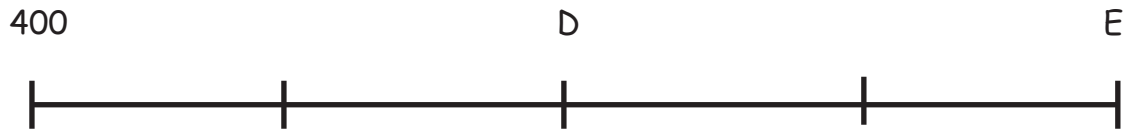
2.



Each unit has a length of _____ centimeters.

C = _____

3. Each hash mark represents 5 more on the number line.



What is the difference between D and E? _____.

D = _____

E = _____

4. Each hash mark represents 10 more on the number line.



What is the difference between the two endpoints? _____.

F = _____

5. Each hash mark represents 10 more on the number line.



What is the difference between the two endpoints? _____.

G = _____

Name _____

Date _____

1. Each unit length on both number lines is 10 centimeters.

(Note: Number lines are not drawn to scale.)

- a. Show 30 centimeters more than 65 centimeters on the number line.



- b. Show 20 centimeters more than 75 centimeters on the number line.



- c. Write an addition sentence to match each number line.

2. Each unit length on both number lines is 5 yards.

- a. Show 25 yards less than 90 yards on the following number line.

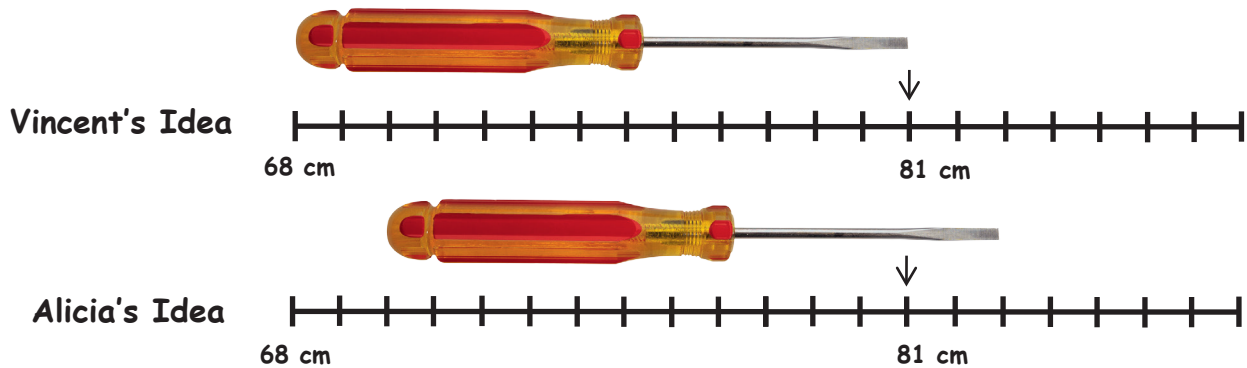


- b. Show 35 yards less than 100 yards on the number line.



- c. Write a subtraction sentence to match each number line.

3. Vincent's meter strip got cut off at 68 centimeters. To measure the length of his screwdriver, he writes "81 cm - 68 cm." Alicia says it's easier to move the screwdriver over 2 centimeters. What is Alicia's subtraction sentence? Explain why she's correct.



4. A large flute is 71 centimeters long, and a small flute is 29 centimeters long. What is the difference between their lengths?
5. Ingrid measured her garden snake's skin to be 28 inches long using a yardstick but didn't start her measurement at zero. What might be the two endpoints of her snakeskin on her yardstick? Write a subtraction sentence to match your idea.

Name _____

Date _____

1. Each unit length on both number lines is 10 centimeters.

(Note: Number lines are not drawn to scale.)

- a. Show 20 centimeters more than 35 centimeters on the number line.



- b. Show 30 centimeters more than 65 centimeters on the number line.



- c. Write an addition sentence to match each number line.

2. Each unit length on both number lines is 5 yards.

- a. Show 35 yards less than 80 yards on the following number line.

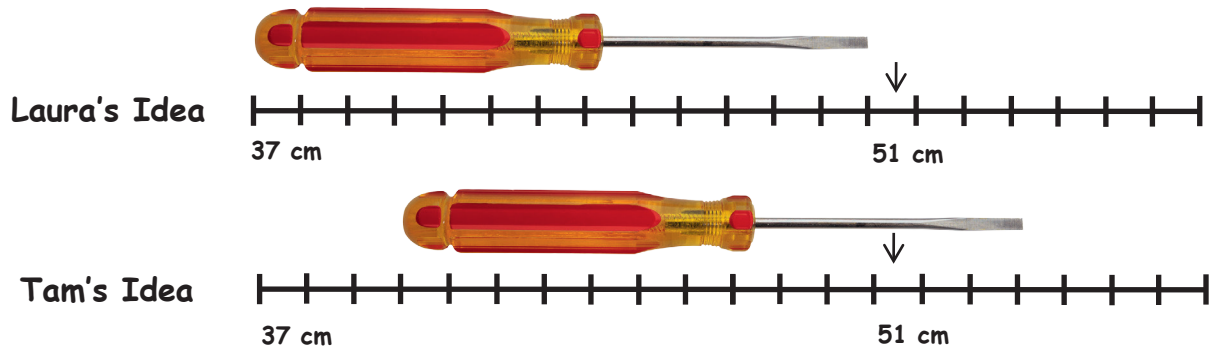


- b. Show 25 yards less than 100 yards on the number line.

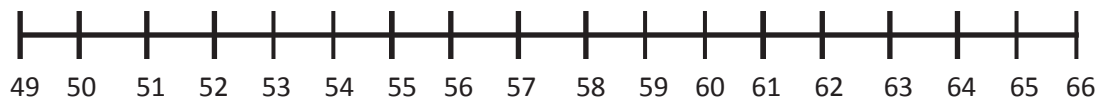


- c. Write a subtraction sentence to match each number line.

3. Laura's meter strip got cut off at 37 centimeters. To measure the length of her screwdriver, she writes "51 cm - 37 cm." Tam says it's easier to move the screwdriver over 3 centimeters. What is Tam's subtraction sentence? Explain why she's correct.



4. Alice measured her belt to be 22 inches long using a yardstick, but she didn't start her measurement at zero. What might be the two endpoints of her belt on her yardstick? Write a subtraction sentence to match your idea.
5. Isaiah ran 100 meters on a 200-meter track. He started running at the 19-meter mark. On what mark did he finish his run?

Number Line A**Number Line B**

number lines A and B

Name _____

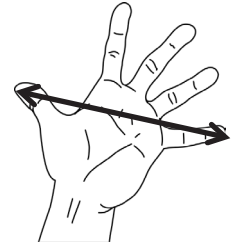
Date _____

1. Gather and record group data.

Write your teacher's handspan measurement here: _____

Measure your handspan, and record the length here: _____

Measure the handspans of the other people in your group, and write them here. We will be using the data tomorrow.



Name:

Handspan:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Handspan	Tally of Number of People
3 inches	
4 inches	
5 inches	
6 inches	
7 inches	
8 inches	

What is the most common handspan length? _____

What is the least common handspan length? _____

What do you think the most common handspan length will be for the whole class? Explain why.

2. Record the class data.

Record the class data using tally marks on the table provided.

Handspan	Tally of Number of People
3 inches	
4 inches	
5 inches	
6 inches	
7 inches	
8 inches	

What handspan length is the most common? _____

What handspan length is the least common? _____

Ask and answer a comparison question that can be answered using the data above.

Question: _____

Answer: _____

Name _____

Date _____

1. Measure the lines below in inches. Record the data using tally marks on the table provided.

Line A _____

Line B _____

Line C _____

Line D _____

Line E _____

Line F _____

Line G _____

Line Length	Number of Lines
Shorter than 5 inches	
Longer than 5 inches	
Equal to 5 inches	

2. How many more lines are shorter than 5 inches than are equal to 5 inches?

3. What is the difference between the number of lines that are shorter than 5 inches and the number that are longer than 5 inches? _____
4. Ask and answer a comparison question that could be answered using the data above.
Question: _____

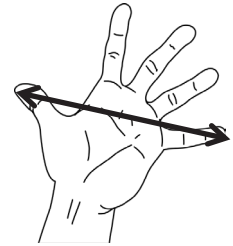
Switch papers with a partner. Have your partner answer your question on the back.

Name _____

Date _____

Measure your handspan, and record the length here: _____

Then, measure the handspans of your family members, and write the lengths below.



Name:

Handspan:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

1. Record your data using tally marks on the table provided.

Handspan	Tally of Number of People
3 inches	
4 inches	
5 inches	
6 inches	
7 inches	
8 inches	

a. What is the most common handspan length? _____

b. What is the least common handspan length? _____

c. Ask and answer one comparison question that can be answered using the data above.

Question:

Answer:

2. a. Use your ruler to measure the lines below in inches. Record the data using tally marks on the table provided.

Line A _____

Line B _____

Line C _____

Line D _____

Line E _____

Line F _____

Line G _____

Line Length	Number of Lines
Shorter than 4 inches	
Longer than 4 inches	
Equal to 4 inches	

- b. How many more lines are shorter than 4 inches than equal to 4 inches?

- c. What is the difference between the number of lines that are shorter than 4 inches and those that are longer than 4 inches? _____

- d. Ask and answer one comparison question that could be answered using the data above.

Question: _____

Answer: _____

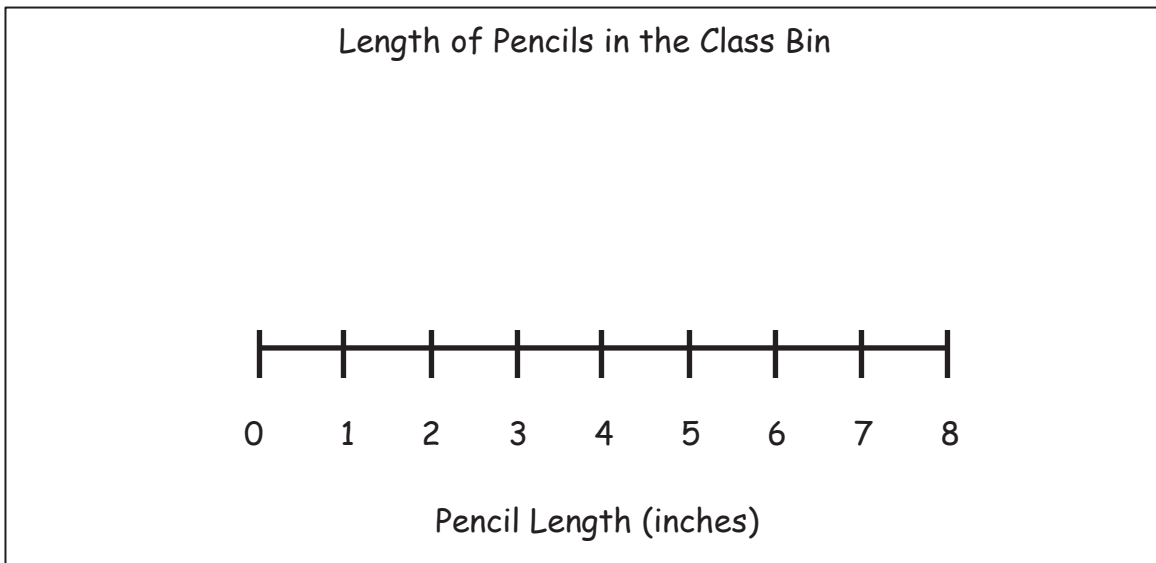
Name _____

Date _____

Use the data in the tables to create a line plot and answer the questions.

1.

Pencil Length (inches)	Number of Pencils
2	
3	
4	
5	
6	
7	
8	



Describe the pattern you see in the line plot:

2.

Length of Ribbon Scraps (centimeters)	Number of Ribbon Scraps
14	
16	
18	###
20	###
22	###

Scraps of Ribbon in the Arts and Crafts Bin

Line Plot

a. Describe the pattern you see in the line plot.

b. How many ribbons are 18 centimeters or longer? _____

c. How many ribbons are 16 centimeters or shorter? _____

d. Create your own comparison question related to the data.

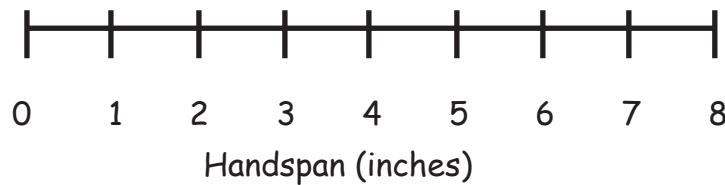
Name _____

Date _____

1. Use the data in the table to create a line plot and answer the question.

Handspan (inches)	Number of Students
2	
3	
4	
5	
6	
7	
8	

Handspans of Students in Ms. DeFransico's Class



Describe the pattern you see in the line plot:

2. Use the data in the table to create a line plot and answer the questions.

Length of Right Foot (centimeters)	Number of Students
17	
18	
19	
20	
21	
22	
23	

Lengths of Right Feet of Students in Ms. DeFransico's Class

Line Plot

a. Describe the pattern you see in the line plot.

b. How many feet are longer than 20 centimeters? _____

c. How many feet are shorter than 20 centimeters? _____

d. Create your own comparison question related to the data.

Name _____

Date _____

Use the data in the chart provided to create a line plot and answer the questions.

1. The chart shows the heights of the second-grade students in Mr. Yin's homeroom.

Height of Second-Grade Students	Number of Students
40 inches	1
41 inches	2
42 inches	2
43 inches	3
44 inches	4
45 inches	4
46 inches	3
47 inches	2
48 inches	1

Title _____

Line Plot

- a. What is the difference between the tallest student and the shortest student?
- b. How many students are taller than 44 inches? Shorter than 44 inches?

2. The chart shows the length of paper second-grade students used in their art projects.

Length of Paper	Number of Students
3 ft	2
4 ft	11
5 ft	9
6 ft	6

Title _____

Line Plot

- a. How many art projects were made? _____
- b. What paper length occurred most often? _____
- c. If 8 more students used 5 feet of paper and 6 more students used 6 feet of paper, how would it change how the line plot looks?

- d. Draw a conclusion about the data in the line plot.

Name _____

Date _____

Use the data in the charts provided to create line plots and answer the questions.

1. The chart shows the lengths of the necklaces made in arts and crafts class.

Length of Necklaces	Number of Necklaces
16 inches	3
17 inches	0
18 inches	4
19 inches	0
20 inches	8
21 inches	0
22 inches	9
23 inches	0
24 inches	16

Title _____

Line Plot

- a. How many necklaces were made? _____

- b. Draw a conclusion about the data in the line plot:
- _____

2. The chart shows the heights of towers students made with blocks.

Height of Towers	Number of Towers
15 inches	9
16 inches	6
17 inches	2
18 inches	1

Title _____

Line Plot

- How many towers were measured? _____
- What tower height occurred most often? _____
- If 4 more towers were measured at 17 inches and 5 more towers were measured at 18 inches, how would it change how the line plot looks?

- Draw a conclusion about the data in the line plot:

Name _____

Date _____

Use the data in the table provided to answer the questions.

1. The table below describes the heights of basketball players and audience members who were polled at a basketball game.

Height (inches)	Number of Participants
25	3
50	4
60	1
68	12
74	18

- a. How tall are most of the people who were polled at the basketball game?

- b. How many people are 60 inches or taller? _____

- c. What do you notice about the people who attended the basketball game?

- d. Why would creating a line plot for these data be difficult?

- e. For these data, a **line plot** / **table** (circle one) is easier to read because ...

Use the data in the table provided to create a line plot and answer the questions.

2. The table below describes the length of pencils in Mrs. Richie's classroom in centimeters.

Length (centimeters)	Number of Pencils
12	1
13	4
14	9
15	10
16	10

a. How many pencils were measured? _____

b. Draw a conclusion as to why most pencils were 15 and 16 cm:

c. For these data, a **line plot** / **table** (circle one) is easier to read because...

Name _____

Date _____

Use the data in the table provided to create a line plot and answer the questions. Plot only the lengths of shoelaces given.

1. The table below describes the lengths of student shoelaces in Ms. Henry's class.

Length of Shoelaces (inches)	Number of Shoelaces
27	6
36	10
38	9
40	3
45	2

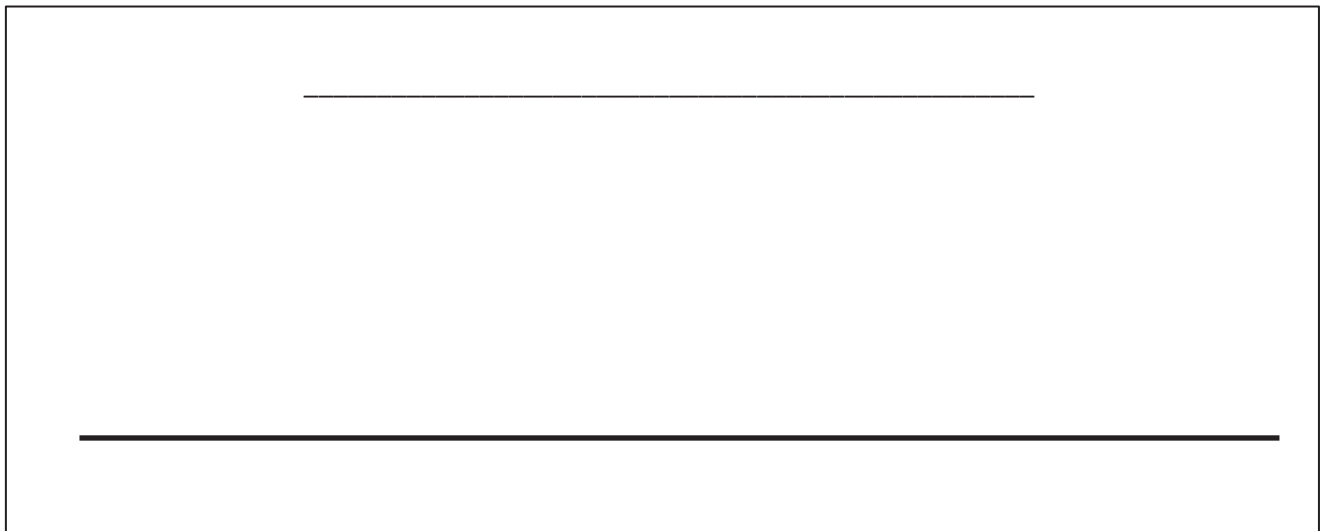
- How many shoelaces were measured? _____
- How many more shoelaces are 27 or 36 inches than 40 or 45 inches? _____
- Draw a conclusion as to why zero students had a 54-inch shoelace.

2. For these data, a **line plot** / **table** (circle one) is easier to read because...

Use the data in the table provided to create a line plot and answer the questions.

3. The table below describes the lengths of crayons in centimeters in Ms. Harrison's crayon box.

Length (centimeters)	Number of Crayons
4	4
5	7
6	9
7	3
8	1

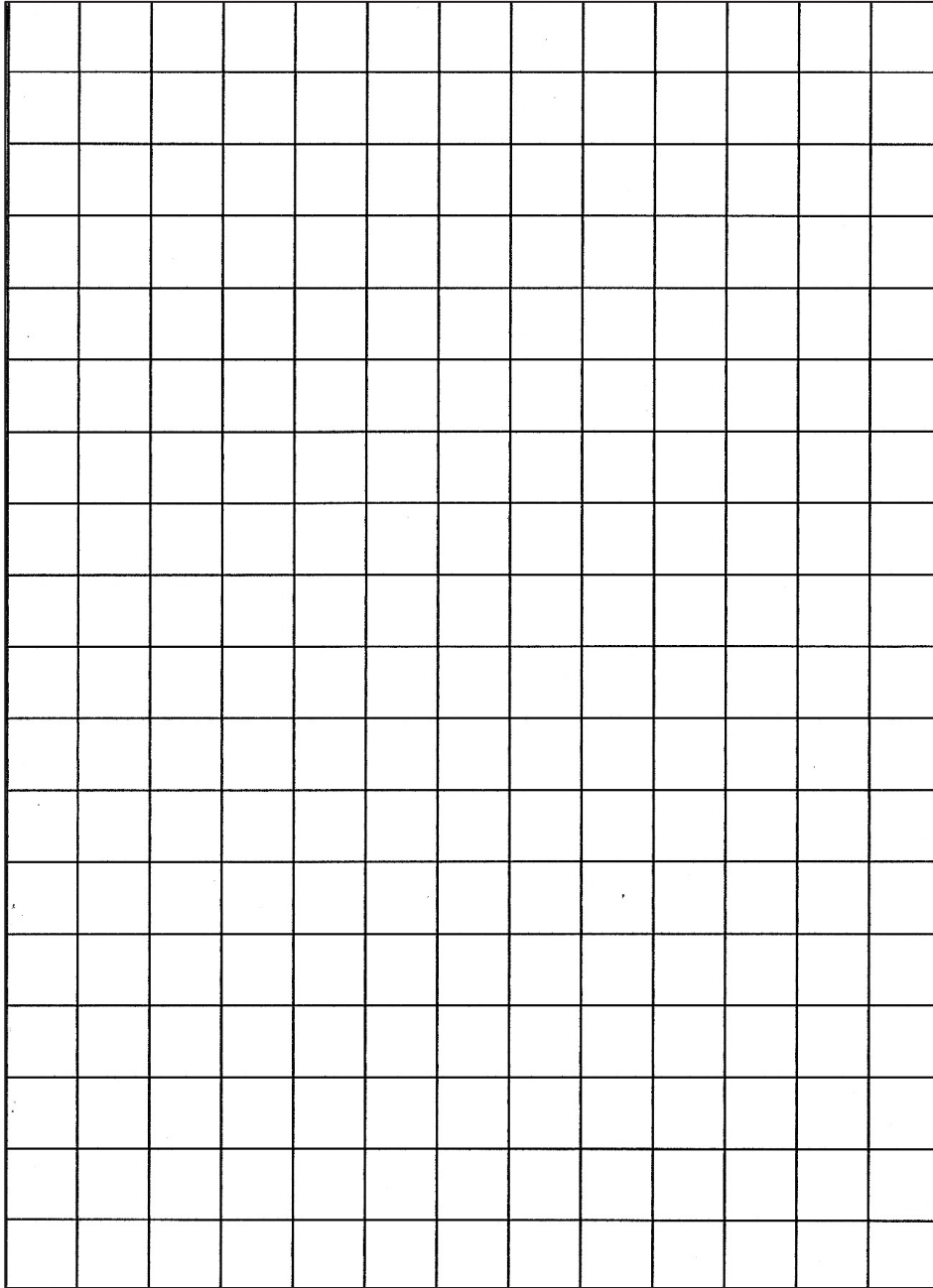


- a. How many crayons are in the box? _____
- b. Draw a conclusion as to why most of the crayons are 5 or 6 centimeters:

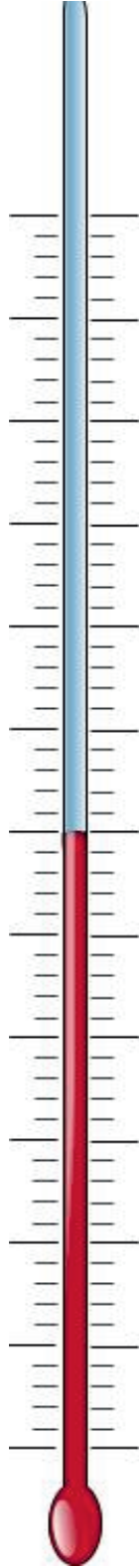
Length of Items in Our Pencil Boxes	Number of Items
6 cm	1
7 cm	2
8 cm	4
9 cm	3
10 cm	6
11 cm	4
13 cm	1
16 cm	3
17 cm	2

Temperatures in May	Number of Days
59°	1
60°	3
63°	3
64°	4
65°	7
67°	5
68°	4
69°	3
72°	1

length and temperature tables

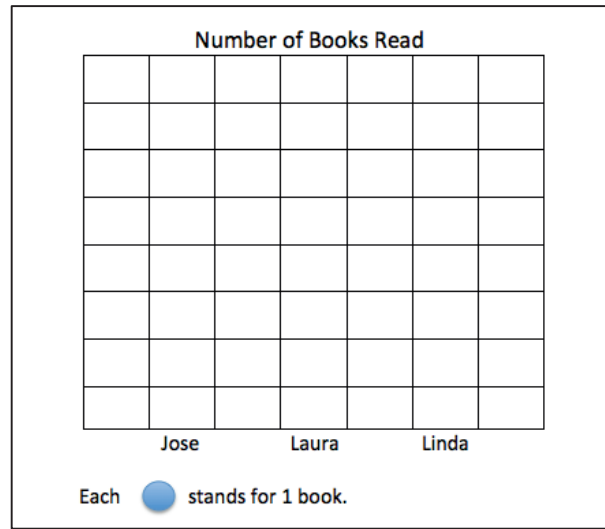
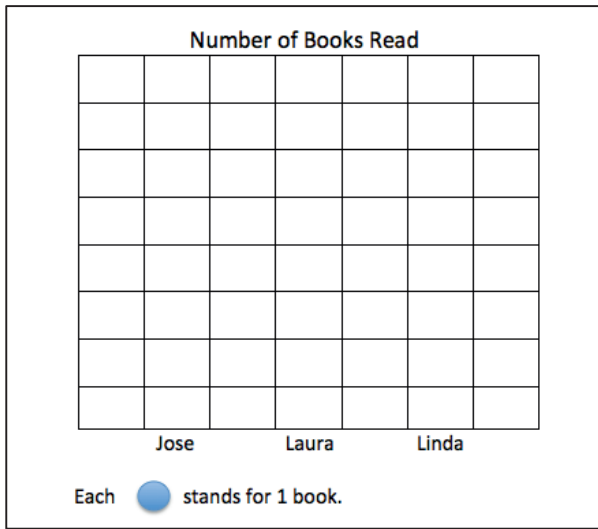
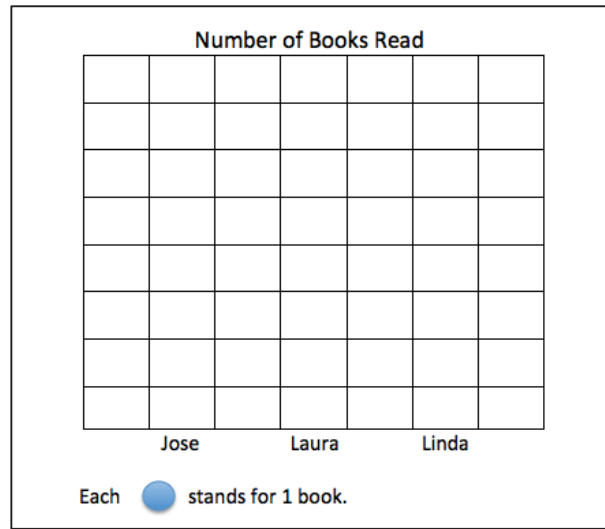
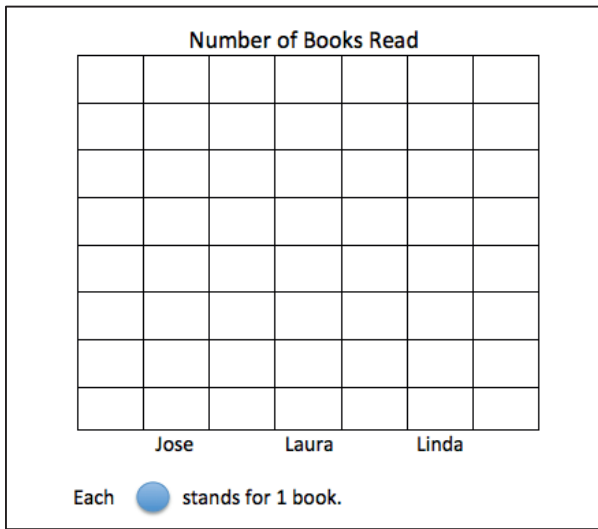


grid paper



thermometer

Cut Out Packet



number of books read picture graphs

The image shows two identical decomposition tree templates. Each template is designed for a number to be decomposed into two parts. At the top of each template is a large inverted V-shape. From the bottom vertex of this V, two horizontal lines extend outwards to the left and right. Below these two lines are two vertical columns of horizontal lines. Each column contains 12 horizontal lines, providing space for students to write the numbers they are decomposing. A vertical dotted line runs down the center of the page, separating the two identical templates.

decomposition tree

$11 - 1$

$11 - 2$

$11 - 3$

$11 - 4$

$11 - 5$

$11 - 6$

$11 - 7$

$11 - 8$

$11 - 9$

$12 - 3$

subtraction fact flash cards set 2

$12 - 4$

$12 - 5$

$12 - 6$

$12 - 7$

$12 - 8$

$12 - 9$

$13 - 4$

$13 - 5$

$13 - 6$

$13 - 7$

subtraction fact flash cards set 2

$13 - 8$

$13 - 9$

$14 - 5$

$14 - 6$

$14 - 7$

$14 - 8$

$14 - 9$

$15 - 6$

$15 - 7$

$15 - 8$

subtraction fact flash cards set 2

$15 - 9$

$16 - 7$

$16 - 8$

$16 - 9$

$17 - 8$

$17 - 9$

$18 - 9$

$19 - 11$

$20 - 19$

$20 - 1$

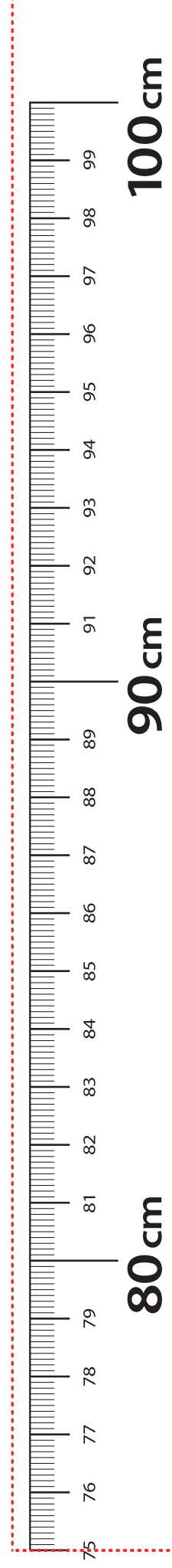
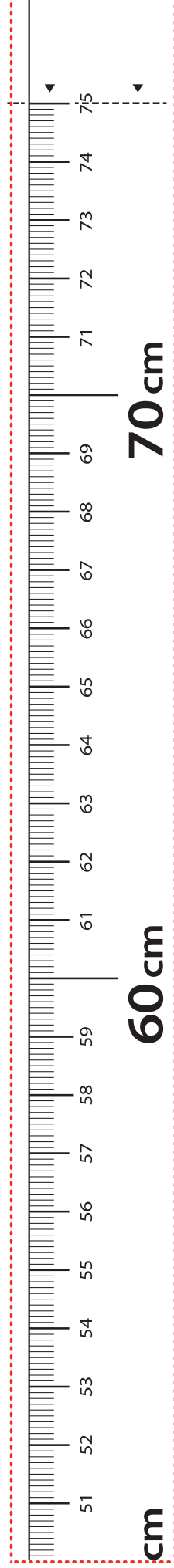
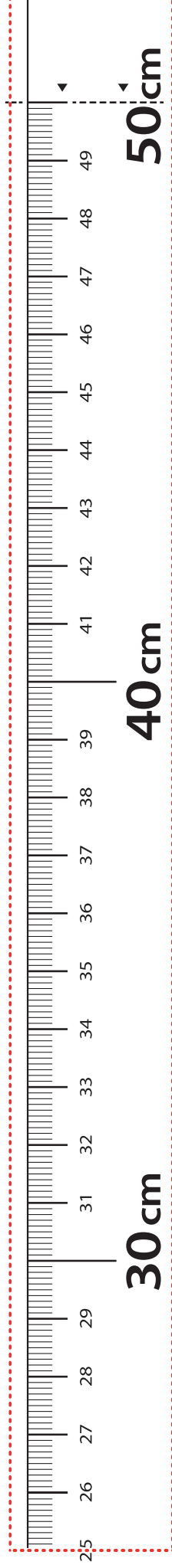
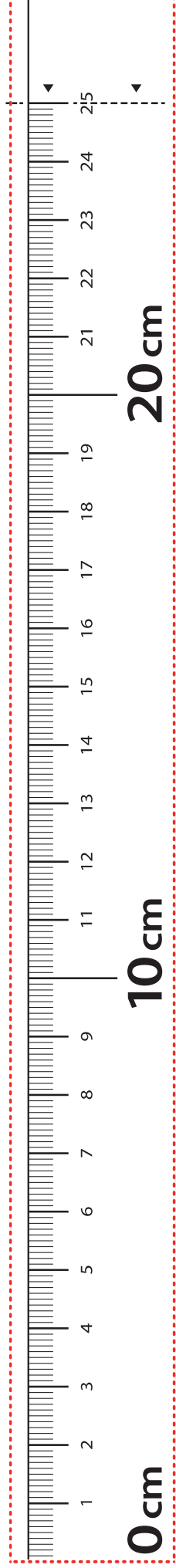
subtraction fact flash cards set 2

$20 - 18$	$20 - 2$
$20 - 17$	$20 - 3$
$20 - 16$	$20 - 4$
$20 - 15$	$20 - 5$
$20 - 14$	$20 - 6$

subtraction fact flash cards set 2

$20 - 13$	$20 - 7$
$20 - 12$	$20 - 8$
$20 - 11$	$20 - 9$
$20 - 10$	

subtraction fact flash cards set 2



LEGEND - - - - CUT - - - - ALIGN EDGE

meter strip

Lesson 21: Identify unknown numbers on a number line diagram by using the distance between numbers and reference points.