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)

Published by the non-profit Great Minds.

Copyright © 2015 Great Minds. No part of this work may be reproduced, sold, or commercialized, in whole or in part, without written permission from Great Minds. Non-commercial use is licensed pursuant to a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 license; for more information, go to http://greatminds.net/maps/math/copyright. "Great Minds" and "Eureka Math" are registered trademarks of Great Minds.

Printed in the U.S.A. This book may be purchased from the publisher at eureka-math.org 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		
5	đ	(~~)		LA
Ç	5	AL MARK		
	G	۶IJ	\sim	- 1
Prove and a second		_		
		~		Jun -
				0

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





Lesson 1: Sort and record data into a table using up to four categories; use category counts to solve word problems

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

Animal Habitats				
Forest Wetlands Grasslands				
J##1		HH HH IIII		

- a. How many animals have habitats on grasslands and wetlands?
- b. How many fewer animals have forest habitats than grasslands habitats?
- c. How many more animals would need to be in the forest category to have the same number as animals in the grasslands category?
- d. 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		
	A			

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





Lesson 1: Sort and record data into a table using up to four categories; use category counts to solve word problems

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

Animal Habitats				
Arctic Forest Grasslands				
6	9			

- a. How many animals live in the arctic?
- b. How many animals have habitats in the forest and grasslands?
- c. How many fewer animals have arctic habitats than forest habitats?
- d. How many more animals would need to be in the grasslands category to have the same number as the arctic and forest categories combined?
- e. 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 Reptile					
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?



Date_____

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

THE .

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

- 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?

	11	тіе: _	 	 	
-					
_					
-					

Legend: _____

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

©2015 Great Minds. eureka-math.org G2-M7-SE-1.3.0-09.2015

Question:	 	 	
Answer: _	 	 	

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

Animal Habitats					
Desert Tundra Grasslands					
	###	₩ ₩₩			



begena.

- 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			

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

©2015 Great Minds. eureka-math.org G2-M7-SE-1.3.0-09.2015

 _	 	 	

Title: _____

Legend: _____

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

Question	:	 	 	
Answer:		 	 	



Legend: _____



Legend: _









Legend:

vertical and horizontal picture graphs



Lesson 2: Draw and label a picture graph to represent data with up to four categories.

Legend: ____

vertical picture graph



_

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			

Т	itle:	 	 	 			
_							

- 0 ____
- 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.

Questio	n:		
Answer:			
UREKA	Lesson 3:	Draw and label a bar graph to represent data; relate the count scale to the number line.	

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



Animal Habitats						
Desert	Arctic	Grasslands				
J##1	##	### ### IIII				

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

Question:	
Answer:	



Α	STO	RY	OF	UNITS
			— · ·	

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					

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					
₩ III							



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

Question	 	 	
Answer: _	 	 	





Title:



horizontal and vertical bar graphs



Lesson 3: Draw and label a bar graph to represent data; relate the count scale to the number line.

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					





0

a. How many butterflies were counted in the park? _____

- b. How many more bees than grasshoppers were counted in the park? _____
- c. Which bug was counted twice as many times as grasshoppers?
- d. How many bugs did Alicia count in the park? _____
- e. 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				



- 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.



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					

		I ITIe	·	 	 	 	 	_	

0

a. How many reptiles are at the zoo? _____

b. How many more snakes and lizards than turtles are at the zoo? _____

c. How many fewer turtles and tortoises than snakes and lizards are at the zoo?

d. 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						



- 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



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:	 	 		
Γ					
Γ					
Γ					
Γ					

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



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					



0

a. How many nickels do the children have in all?

b. What is the total value of Annie's and Remy's coins? ____

- c. How many fewer nickels does Remy have than LaShay? ____
- d. Who has less money, Annie and Scarlett or Remy and LaShay?
- e. 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. _____







Number of Dimes

Emily	Andrew	Thomas	Ava
8	12	6	13



- 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?



Number of Dimes Donated

Madison	Robin	Benjamin	Miguel
12	10	15	13



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



Name Date

Number of Nickels			
Justin	Melissa	Meghan	Douglas
13	9	12	7





- 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?



Kylie	Tom	John	Shannon
12	10	15	13



Dimes Donated

a. How many dimes did Shannon donate?

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



Date_____

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

Write the value using the ¢ or \$ symbol.









Date_____

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

Write the value using the ¢ or \$ symbol.









Name _____ Date ____

Solve.

1. Grace has 3 dimes, 2 nickels, and 12 pennies. How much money does she have?

2. Lisa has 2 dimes and 4 pennies in one pocket and 4 nickels and 1 quarter in the other pocket. How much money does she have in all?

3. Mamadou found 39 cents in the sofa last week. This week, he found 2 nickels, 4 dimes, and 5 pennies. How much money does Mamadou have altogether?



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?


Name _____ Date _____

Solve.

1. Owen has 4 dimes, 3 nickels, and 16 pennies. How much money does he have?

2. Eli found 1 quarter, 1 dime, and 2 pennies in his desk and 16 pennies and 2 dimes in his backpack. How much money does he have in all?

3. Carrie had 2 dimes, 1 quarter, and 11 pennies in her pocket. Then, she bought a soft pretzel for 35 cents. How much money does Carrie 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?



Α	STO	RY	OF	UNITS	
	0.0		···	00	

Name	Date	

Solve.

1. Patrick has 1 ten-dollar bill, 2 five-dollar bills, and 4 one-dollar bills. How much money does he have?

2. Susan has 2 five-dollar bills and 3 ten-dollar bills in her purse and 11 one-dollar bills in her pocket. How much money does she have in all?

3. Raja has \$60. He gave 1 twenty-dollar bill and 3 five-dollar bills to his cousin. How much money does Raja 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?



Name _____ Date _____

Solve.

1. Mr. Chang has 4 ten-dollar bills, 3 five-dollar bills, and 6 one-dollar bills. How much money does he have in all?

2. At her yard sale, Danielle got 1 twenty-dollar bill and 5 one-dollar bills last week. This week, she got 3 ten-dollar bills and 3 five-dollar bills. What is the total amount she got for both weeks?

3. Patrick has 2 fewer ten-dollar bills than Brenna. Patrick has \$64. How much money does Brenna have?



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.

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



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.

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



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.

Fewest coins:

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

Fewest coins:



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.

Fewest coins:

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

Fewest coins:



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
---	--------------------------------------



	A STORY OF UNITS	Lesson 11 Problem Set 2.7
N	ame	Date
1.	Count up using the arrow way to co coins to show your answers are cor	omplete each number sentence. Then, use your rrect.
	a. 45¢ + = 100¢	b. 15¢ + = 100¢
	$45 \xrightarrow{+5} \underline{\qquad}^{+} \overline{\longrightarrow} 100$	
	c. 57¢ + = 100¢	d + 71¢ = 100¢
2.	Solve using the arrow way and a nu	ımber bond.
	a. 79¢ + = 100¢	\$1 79¢

- b. 64¢ + _____ = 100¢
- c. 100¢ 30¢ = _____



3. Solve.



b. 100¢ - 55¢ = _____

c. 100¢ - 28¢ = _____

d. 100¢ - 43¢ = _____

e. 100¢ - 19¢ = _____



	A STORY OF UNITS	Lesson 11 Homework 2•7
No	ime	Date
1.	Count up using the arrow way to co check your answers, if possible.	omplete each number sentence. Then, use coins to
	a. 25¢ + = 100¢	b. 45¢ + = 100¢
	$25 \xrightarrow{+5} \underline{\qquad}^+ \overline{\longrightarrow} 100$	
	c. 62¢ + = 100¢	d + 79¢ = 100¢
2.	Solve using the arrow way and a nu	umber bond.

a. 19¢ + _____ = 100¢



- b. 77¢ + _____ = 100¢
- c. 100¢ 53¢ = _____



- 3. Solve.
 - a. _____ + 38¢ = 100¢

b. 100¢ - 65¢ = _____

c. 100¢ - 41¢ = _____

d. 100¢ - 27¢ = _____

e. 100¢ - 14¢ = _____



Name _____ Date _____

Solve using the arrow way, a number bond, or a tape diagram.

1. Jeremy had 80 cents. How much more money does he need to have \$1?

2. Abby bought a banana for 35 cents. She gave the cashier \$1. How much change did she receive?

3. Joseph spent 75 cents of his dollar at the arcade. How much money does he have left?



4. The notepad Elise wants costs \$1. She has 4 dimes and 3 nickels. How much more money does she need to buy the notepad?

5. Dane saved 26 cents on Friday and 35 cents on Monday. How much more money will he need to save to have saved \$1?

6. Daniel had exactly \$1 in change. He lost 6 dimes and 3 pennies. What coins might he have left?



Name _____ Date _____

Solve using the arrow way, a number bond, or a tape diagram.

1. Kevin had 100 cents. He spent 3 dimes, 3 nickels, and 4 pennies on a balloon. How much money does he have left?

2. Colin bought a postcard for 45 cents. He gave the cashier \$1. How much change did he receive?

3. Eileen spent 75 cents of her dollar at the market. How much money does she have left?



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?



Name _____ Date ____

Solve with a tape diagram and number sentence.

1. Josephine has 3 nickels, 4 dimes, and 12 pennies. Her mother gives her 1 coin. Now Josephine has 92 cents. What coin did her mother give her?

2. Christopher has 3 ten-dollar bills, 3 five-dollar bills, and 12 one-dollar bills. Jenny has \$19 more than Christopher. How much money does Jenny have?

3. Isaiah started with 2 twenty-dollar bills, 4 ten-dollar bills, 1 five-dollar bill, and 7 one-dollar bills. He spent 73 dollars on clothes. How much money does he have left?



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?



Name	Date

1. Kelly bought a pencil sharpener for 47 cents and a pencil for 35 cents. What was her change from \$1?

2. Hae Jung bought a pretzel for 3 dimes and a nickel. She also bought a juice box. She spent 92 cents. How much was the juice box?

3. Nolan has 1 quarter, 1 nickel, and 21 pennies. His brother gave him 2 coins. Now he has 86 cents. What 2 coins did his brother give him?



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

 - 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.





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.



Г

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	
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.	
	1 2 3 4 5	



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.

- 1. The length of a book is
 - _____ the yardstick.
- 2. The height of the door is

_____ the yardstick.

3. 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.	1.	1.
inches	inches	inches
2.	2.	2.
inches	inches	inches
3.	3.	3.
inches	inches	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 <u>more than / less than / about the same as</u> the length of a yardstick.
 - b. The width of a door is <u>more than / less than / about the same as</u> the length of a yardstick.
 - c. The length of a laptop computer is <u>more than / less than / about the same as</u> the length of a 12-inch ruler.
 - d. The length of a cell phone is <u>more than / less than / about the same as</u> 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	
۵.	I would use	_ to measure the length of
Ь.		
С.		

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.		
С.		



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			
с.	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			



Lesson 17: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks.

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			



٨	ст		ΡV		LIN	лтс
A	21	U	ΠI	UF	U	VII S

Name	_ Date	
		,,,,,,, _

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

1.				
		cm	in	
2.				
		cm	in	
2				
З.		cm	in	
4.				
		cm	in	
5.	а.	Did you use more inche	s or more centimeters when measu	uring the lines above?

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



Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size.

- 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. _____ in _____ cm 2. _____ in _____ cm 3. _____ _____ in _____ cm 4. _____ in _____ cm



- 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.
- 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.



Lesson 19 Problem Set
Date
he length on the line. Complete the
ne B measured about inches. ne B.





- 3. Solve the following problems:
 - a. 32 ft + _____ = 87 ft
 - b. 68 ft 29 ft = _____
 - c. _____ 43 ft = 18 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.

	Tammy's Fence 54 yards		Martha's Fence yards
How long is Martha's fence?yards			
What is the total length of both fences? yards			



۵.

b.

	CTO	DV	05	LINUTC
А	310	זחי	Ur	UNITS

N	Name	Date
M co	Measure each set of lines in inches, and write comparison sentence.	the length on the line. Complete the
1.	I. Line A	
	Line B	
	Line A measured about inches.	Line B measured about inches.
	Line A is about inches longer than l	_ine B.
2.	2. Line C	
	Line D	
	Line C measured about inches.	Line D measured about inches.
	Line D is about inches shorter than l	Line C.
2	2 Solve Check your engineers with a polated	addition on subtraction sontonco
з.	5. Solve. Check your answer's with a related	addition or subtraction sentence.
	a. 8 inches - 5 inches = inches	
	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



Name _____ Date _____

Solve using tape diagrams. Use a symbol for the unknown.

1. Mr. Ramos has knitted 19 inches of a scarf he wants to be 1 yard long. How many more inches of scarf does he need to knit?

2. In the 100-yard race, Jackie has run 76 yards. How many more yards does she have to run?

3. Frankie has a 64-inch piece of rope and another piece that is 18 inches shorter than the first. What is the total length of both ropes?



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?



Name	Date	

Solve using tape diagrams. Use a symbol for the unknown.

1. Luann has a piece of ribbon that is 1 yard long. She cuts off 33 inches to tie a gift box. How many inches of ribbon are not used?

2. Elijah runs 68 yards in a 100-yard race. How many more yards does he have to run?

3. Chris has a 57-inch piece of string and another piece that is 15 inches longer than the first. What is the total length of both strings?



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.





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



What is the difference between the two endpoints? _____.

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





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.





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



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



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





Name

Date _____

- 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.



 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 _____

- 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.



 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 me	asurement here:	
	Measure your handspan, and record	d the length here:	
	Measure the handspans of the oth write them here. We will be using		
	Name:	Handspan:	

Handspan	Tally of Number of People	What is the most common handspan length?
3 inches		What is the least common handspan length?
4 inches		What do you think the most common handspan length will be for the whole class? Explain why.
5 inches		
6 inches		
7 inches		
8 inches		



Lesson 23: Collect and record measurement data in a table; answer questions and summarize the data set.

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.

Answer:	



Name	Date

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



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 le	ngth here:	AR
Then, measure the handspans of your fam lengths below.	ily members, and write the	
Name:	Handspan:	/ " 7
		-
		_
		_

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

		۵.	What is the most common handspan length?
Handspan	Tally of Number of People	b.	What is the least common handspan length?
3 inches		C.	Ask and answer one comparison question that can
4 inches			be answered using the data above.
5 inches		Que	stion:
6 inches			
7 inches		Ansv	ver:
8 inches			



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



- 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	l
3	
4	
5	
6	
7	
8	



Describe the pattern you see in the line plot:



Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.

105

2.

Length of Ribbon Scraps (centimeters)	Number of Ribbon Scraps
14	I
16	111
18	
20	HH 11
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.



Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.

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	



Describe the pattern you see in the line plot:



Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.
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	J## I
21	J##1
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



a. How many towers were measured? _____

b. What tower height occurred most often? _____

c. 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?

d. 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

	_
	-

a. How many shoelaces were measured?

- b. How many more shoelaces are 27 or 36 inches than 40 or 45 inches?
- c. 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 ...



Lesson 26: Draw a line plot to represent a given data set; answer questions and draw conclusions based on measurement data.

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:



Lesson 26: Draw a line plot to represent a given data set; answer questions and draw conclusions based on measurement data.

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



				9				
				·				
*					,			
:								28
	 		8					
						2	5	

grid paper





thermometer



Lesson 26: Draw a line plot to represent a given data set; answer questions and draw conclusions based on measurement data.

Cut Out Packet









number of books read picture graphs



Lesson 3: Draw and label a bar graph to represent data; relate the count scale to the number line.





11 - 1	11 - 2
11 - 3	11 - 4
11 - 5	11 - 6
11 - 7	11 - 8
11 - 9	12 - 3



12 - 4	12 - 5
12 - 6	12 - 7
12 - 8	12 - 9
13 - 4	13 - 5
13 - 6	13 - 7



13 - 8	13 - 9
14 - 5	14 - 6
14 - 7	14 - 8
14 - 9	15 - 6
15 - 7	15 - 8



15 - 9	16 - 7
16 - 8	16 - 9
17 - 8	17 - 9
18 - 9	19 - 11
20 - 19	20 - 1



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



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





©2015 Great Minds. eureka-math.org G2-M7-CUTS-1.3.0-09.2015