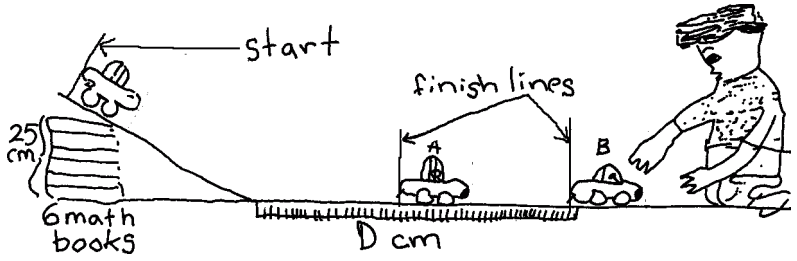
LETTER HOME

Going to Great Lengths

Dear Family Member:

Students will learn techniques for estimating and measuring lengths. They will apply measurement concepts and skills as they begin measuring with nonstandard units, palms and footprints, and then transition to standard units: inches, feet, yards, centimeters, and meters. They will measure real-life objects including stuffed animals from home, and longer lengths such as tape lines on the floor to show the length of various large animals.

Students will then apply measurement skills as they use the TIMS Laboratory Method to investigate how far different cars roll when released from the top of a ramp. This activity highlights estimating, measuring accurately, recording data, and making sure the experiment is fair.



We encourage you to look for mathematical opportunities at home. For example:

Measure and Estimate at Home. Select various objects and distances at home. Ask your child what unit they think would be an appropriate unit to estimate and measure the length of the object. Use a standard unit like inches, feet, or meters or a nonstandard unit like footprints, palms, arm spans. As you estimate and measure, use words such as *long, tall, short, longer, taller, shorter, longest, tallest* and *shortest* where appropriate.

Roll Cars. Help your child set up a ramp similar to the one he or she used in class. Help your child roll the car down the ramp and measure how far it rolls. After several runs with one car, suggest changing one aspect, such as the height of the ramp or the car being used. Encourage your child to talk about what is happening.

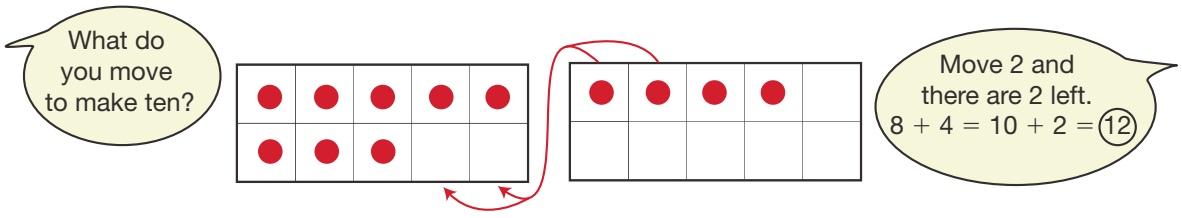
Math Facts and Mental Math

This unit continues the systematic review and assessment of the addition facts. Students review the addition facts in Group E to develop strategies for those with sums larger than 10. The facts in this group involve the make-ten and use-ten strategies.

Group E: $5 + 7$, $8 + 4$, $8 + 5$, $9 + 3$, $9 + 4$, $9 + 5$, $10 + 1$, $10 + 2$, $10 + 3$

Addition Facts. You can help your child develop strategies for these facts using the flash cards that are sent home or by making a set from index cards or scrap paper. Study the facts in a small group each night. As your child goes through the facts, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, use two sets of *0–10 Small Ten Frame Cards* to practice using the make-ten strategy to solve addition problems. Show your child two cards and ask what they would move to make ten.

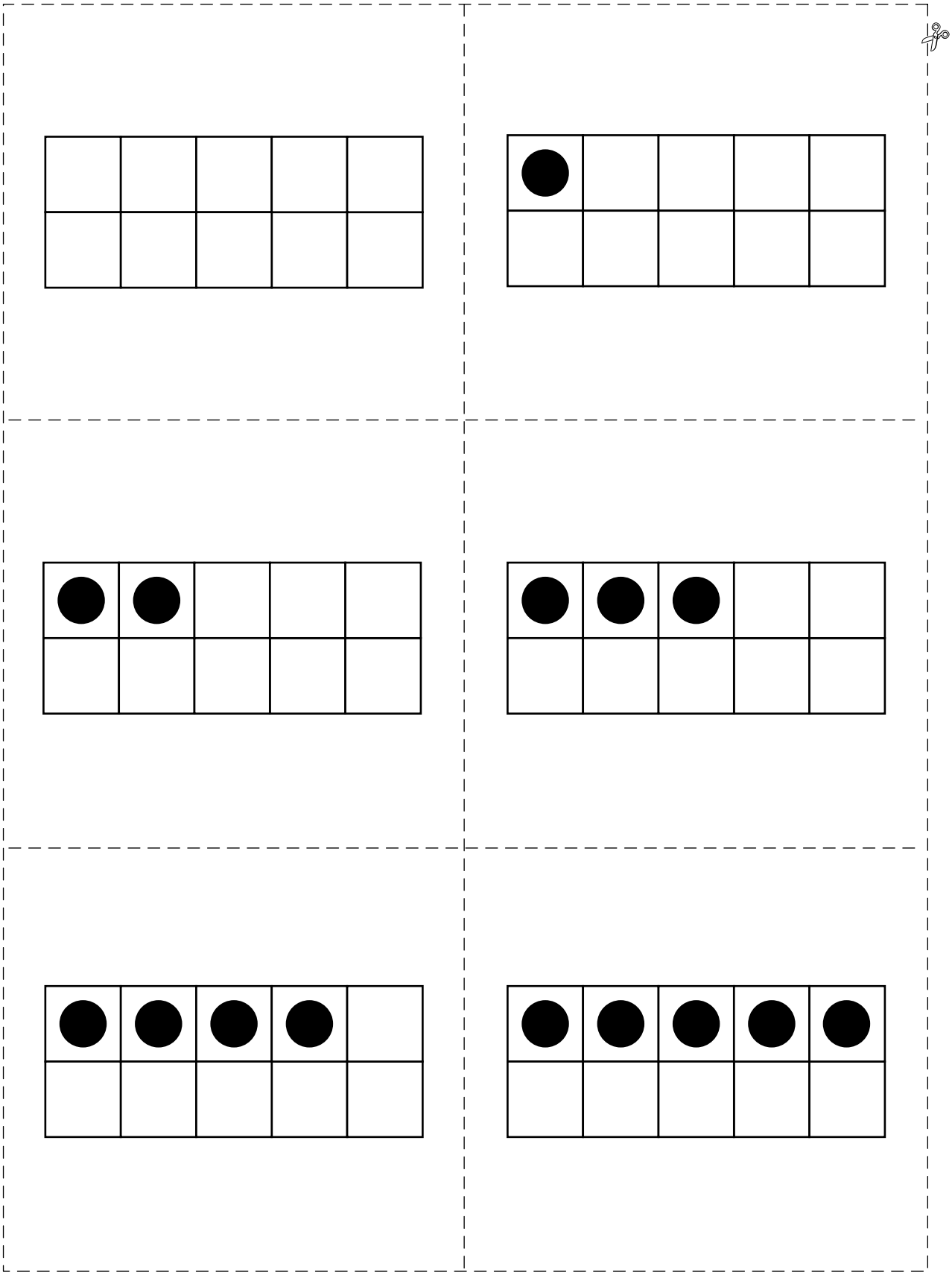


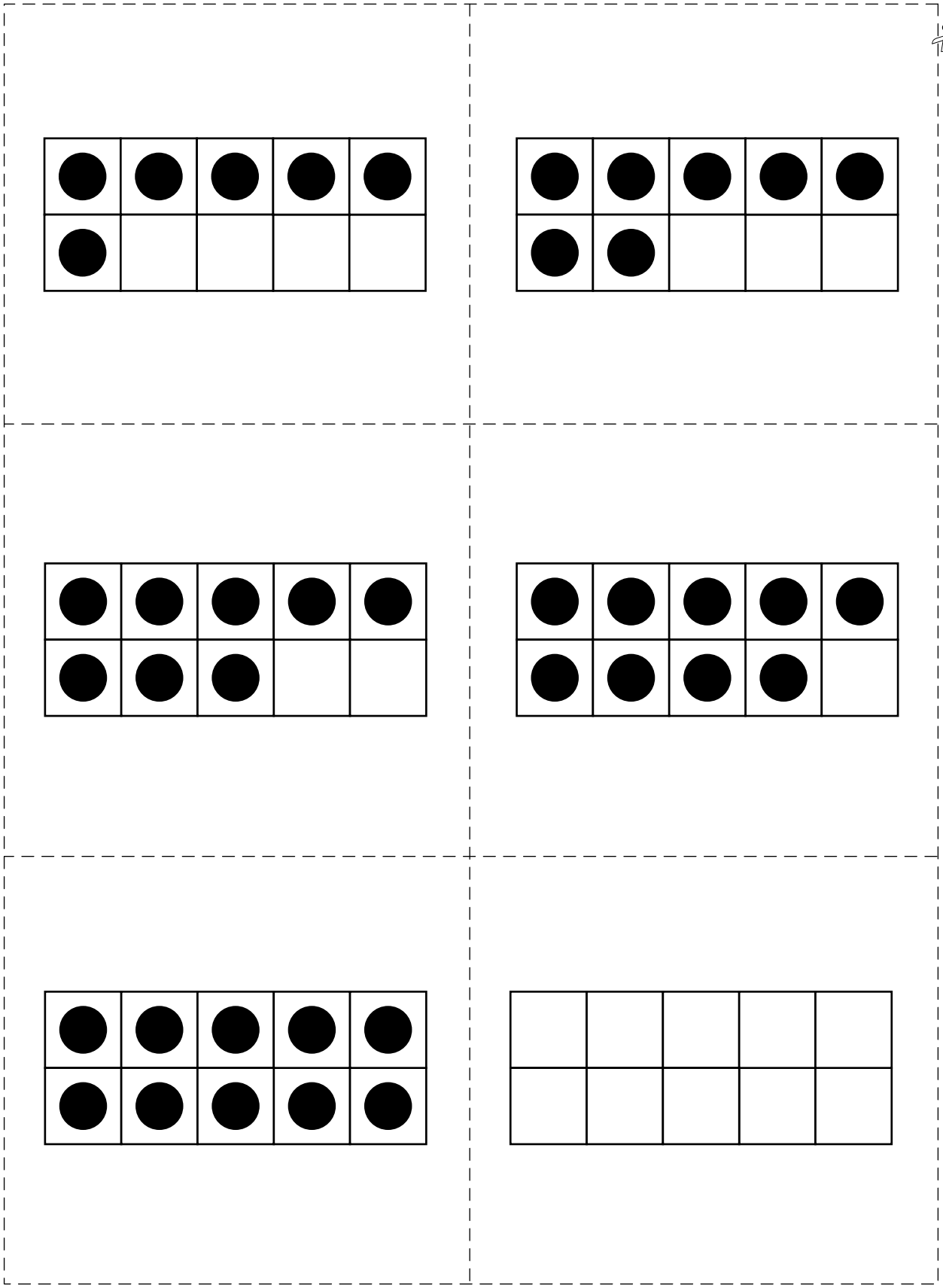
For Facts I Can Figure Out, use the flash cards to develop fluency with the addition facts.

For Facts I Know Quickly, help your child develop strategies for the related subtraction facts (e.g. “If I know that $8 + 5 = 13$, what is $13 - 8$?”).

Sincerely,

0–10 Small Ten Frame Cards





Name _____ Date _____

Unit 4: Home Practice

Part 1 Addition Flash Cards: Group E

Take home your *Triangle Flash Cards: Group E.* Ask a family member to choose one flash card at a time for you to solve. Sort the flash cards into three piles: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn. Update your *Addition Facts I Know* chart. Clip the cards in the Facts I Know Quickly pile together and place them back into the envelope. Practice the facts in the last two piles again.

Part 2 Addition Facts Practice

List and solve the other facts in the fact families.

A. $8 + 4 = \square$

B. $12 - 9 = \square$

C. $12 - 5 = \square$

D. $9 + 4 = \square$

E. $\square + 5 = 13$

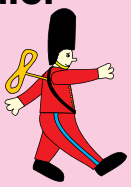
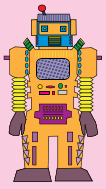
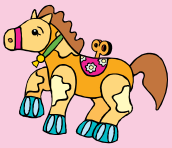
F. $9 + 5 = \square$

Name _____ Date _____

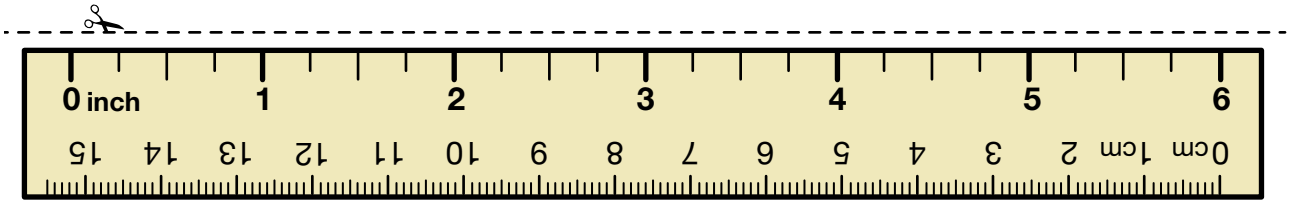
Part 3 Measurement Problems

Fern tested all of her wind-up toys to see how far they could walk before stopping. She wrote down the distances.

1. Help Fern draw lines so she can sort the lengths by size. Start at the point. You will need a 12-inch ruler and a centimeter ruler.

soldier 	9 centimeters •
robot 	12 centimeters •
horse 	4 inches •
doll 	3 inches •

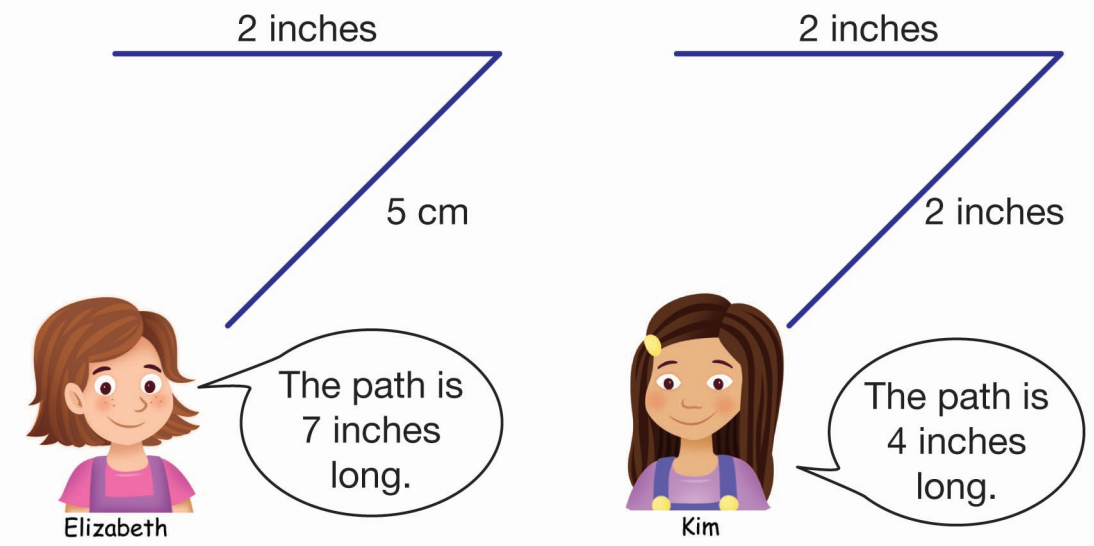
2. Put the measurements in order from smallest to largest. Remember to include labels.



Name _____ Date _____

Part 4 Measuring with Centimeters and Inches

1. Kim and Liz both measured the same ant path. They each drew and labeled the sketches below.



Do you agree with Liz or Kim? Why?

_____

2. Miguel measured the length of two toy animals.

Animal	Length (in.)	Length (cm)
turtle	2	5
alligator	12	30

A. How much longer is the alligator than the turtle?

_____

B. Draw a line to show the length of the turtle in inches.

C. Draw a line to show the length of the turtle in centimeters.

Name _____ Date _____

Part 5 Missing Numbers

Fill in the missing numbers to make the number sentences true.

1. A. $6 + 3 = 7 + \square + 2$

B. $10 + \square = 6 + 4 + 3$

C. $4 + 5 + 6 = 5 + \square$

D. $2 + 6 + 3 = 10 + \square$

E. $11 + 5 = 10 + \square$

F. $8 + 11 = \square + 10$

G. Show your strategy for solving Question E.

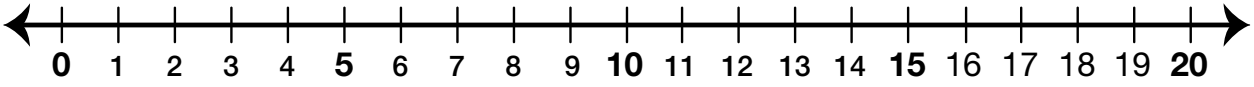
2. Marty and Sam are saving change. They want to buy a pack of baseball cards. So far Marty has 35¢. Sam has 20¢. How much do they have together? Show how you can solve the problem.

Draw what coins could make this total.

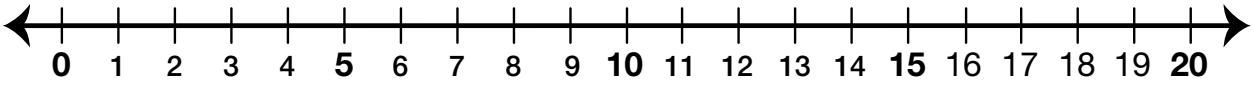
Name _____ Date _____

Part 6 Addition Strategies Practice

1. Farmer Ted has turkeys on his farm. He feeds each turkey 2 pounds of feed a day. How much feed will each of Farmer Ted's turkeys eat in one week? Show or tell how you solved the problem.

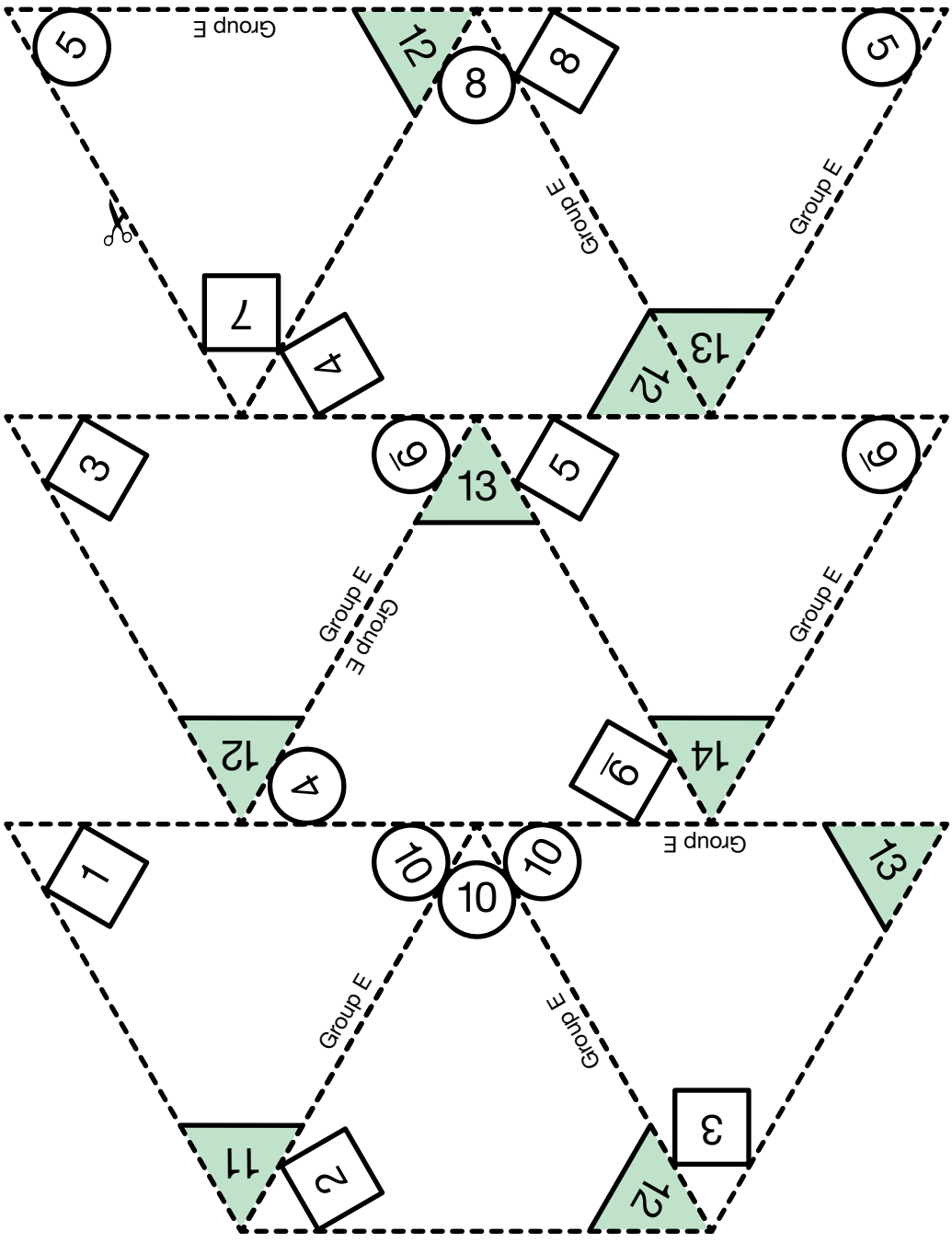


2. Nan is one of Farmer Ted's turkeys. She weighs 12 pounds. How many more pounds will Nan have to gain to weigh 20 pounds? Show or tell how you solved the problem.



Triangle Flash Cards: Group E

- **To practice an addition fact, cover the corner with the highest number. Add the two uncovered numbers.**
- **To practice a subtraction fact, cover one of the smaller numbers and subtract from the highest number.**



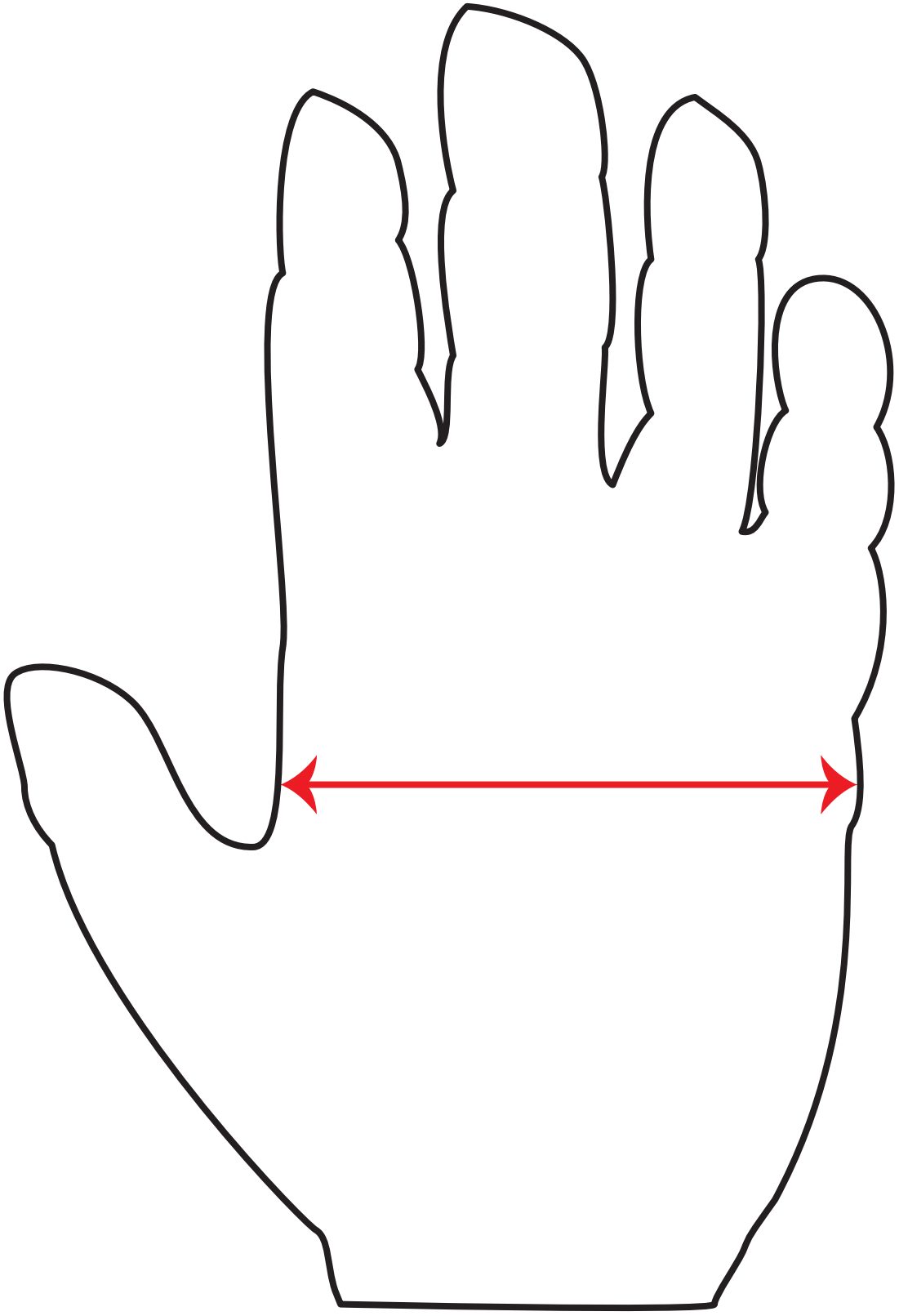
Name _____ Date _____

Addition Facts I Know

Circle the facts you know quickly.

1 + 1	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6	1 + 7	1 + 8	1 + 9	1 + 10
2 + 2	2 + 3	2 + 4	2 + 5	2 + 6	2 + 7	2 + 8	2 + 9	2 + 10	
3 + 3	3 + 4	3 + 5	3 + 6	3 + 7	3 + 8	3 + 9	3 + 10		
4 + 4	4 + 5	4 + 6	4 + 7	4 + 8	4 + 9	4 + 10			
5 + 5	5 + 6	5 + 7	5 + 8	5 + 9	5 + 10				
6 + 6	6 + 7	6 + 8	6 + 9	6 + 10					
7 + 7	7 + 8	7 + 9	7 + 10						
8 + 8	8 + 9	8 + 10							
9 + 9	9 + 10								
10 + 10									

Gloria the Gorilla's Palm



Name _____ Date _____

Furry Footprints

Homework

Dear Family Member:

Your child has been using nonstandard units to measure lengths around the classroom. Cut out the two animal footprints and help your child use them to measure distances in your home. Measure "heel to toe".

Thank you.

1. Measure to the nearest whole footprint.

Distance	Raccoon Footprints	Black Bear Footprints
length of table		
height of chair		
length of a book		
width of refrigerator		
width of backpack		

2. Compare the lengths. Use $<$, $>$, or $=$.

A. 2 raccoon footprints ◯ 2 black bear footprints

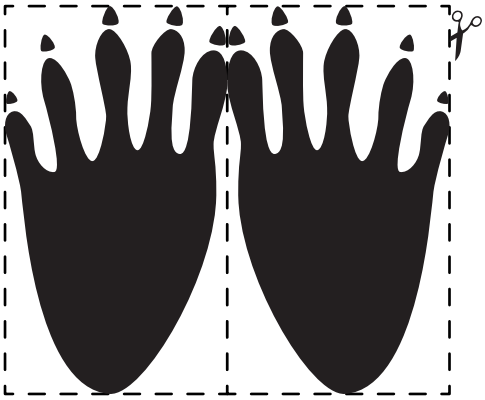
B. 10 raccoon footprints ◯ 2 black bear footprints

C. 3 raccoon footprints ◯ 1 black bear footprint

D. 5 raccoon footprints ◯ 3 black bear footprints

Name _____ Date _____

Raccoon Footprints



Black Bear Footprints

Name _____ Date _____

Calling All Animals

Dear Family Member:

We are collecting stuffed or toy animals for a measuring activity. Please send in one toy animal that is taller than a sheet of paper (11 inches), and one shorter than a sheet of paper. **The toys will be returned at the end of the unit.**

Thank you.

Choose two toy animals. Draw a picture and name each animal.

Animal taller than a sheet of paper	Animal shorter than a sheet of paper

Animal Name _____ Animal Name _____

Name _____ Date _____

Measure with a Ruler

Homework

Dear Family Member:

We have been measuring with inches and centimeters. Help your child find an object that is about 1 inch long and an object that is about 1 centimeter long. If possible, have your child bring these objects to school to add to a class display. Then help him or her find two other objects to measure.

Thank you.

1. Find and measure the length of four objects in inches and centimeters. Measure to the nearest whole unit.

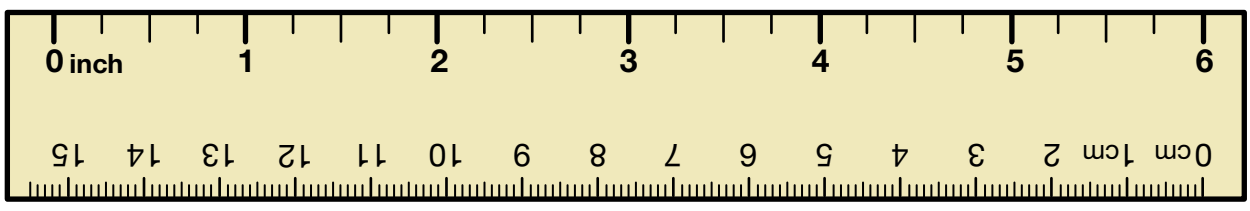
Object	Inches	Centimeters

2. **A.** What is the length of the longest object? _____

B. What is the length of the shortest object? _____

C. What is the difference in length between the two? _____

Number sentence _____



Name _____ Date _____

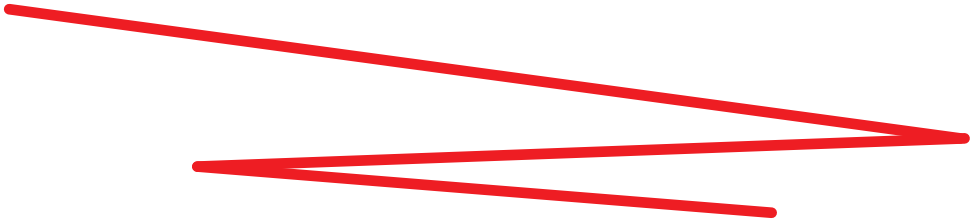
3. Measure each distance in centimeters and inches.

A.

Length in centimeters _____

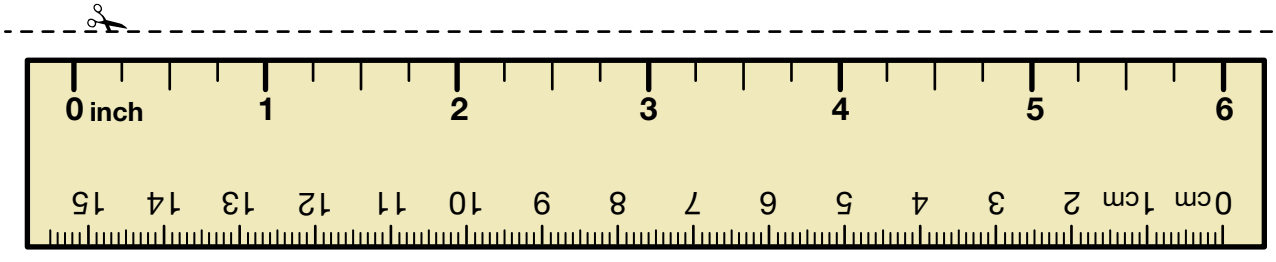
Length in inches _____

B.



Length in centimeters _____

Length in inches _____



Name _____ Date _____

School Bus Measurements

Homework

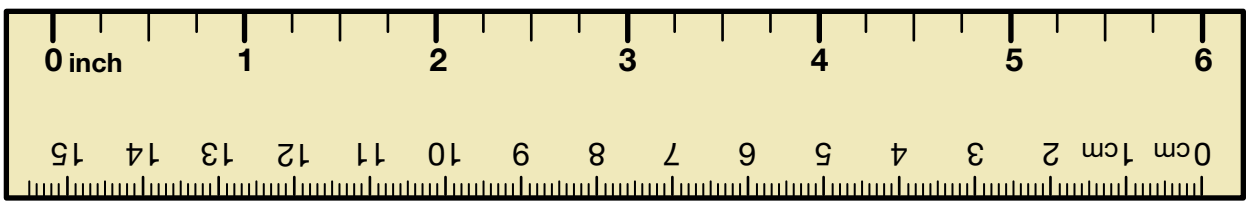
Dear Family Member:

Students have been measuring distances using centimeters, meters, feet, and yards. Help your child visualize the size of these units as they estimate. A meter is 100 centimeters. A yard is about the same size as a meter. A foot is about the size of this page.

Thank you.

1. Carla and Rosa measured objects they found on a school bus but forgot to label the units. Circle the appropriate unit.

Object Measured	Length	Unit	
A. Size of buckle	3	inches	feet
B. Seatbelt strap length	4	feet	yards
C. Length of bus	11	centimeters	meters
D. Length of 1 window	50	centimeters	meters



Name _____ Date _____

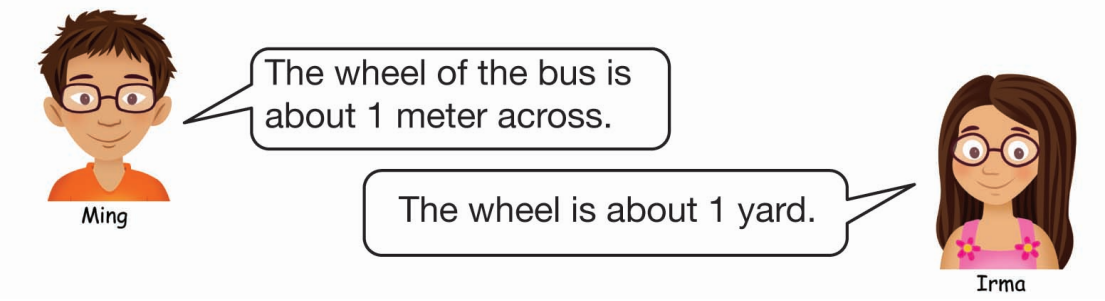
2. Frank wants to measure the height of the bus. Which unit should he use? Circle one.

centimeters meters inches

Explain your thinking. _____

_____

3. Ming and Irma describe the size of the wheel on the school bus. Do you agree with Ming or Irma? Circle one.



Tell how you decided.

_____

_____

4. Draw a picture of a distance that is about 1 meter.

5. Draw a picture of a distance that is about 1 foot.

Name _____ Date _____

Estimate at Home

Dear Family Member:

Your child has been estimating and measuring lengths using inches, feet, yards, centimeters, and meters. Work with your child to decide if each measurement below "could be" or is "crazy".

Thank you.

1. Choose could be or crazy.

A. Tara estimates a dollar bill is about 6 feet long.

could be crazy

B. Johnny estimates that a can of soda pop is about 5 inches tall.

could be crazy

C. Roberto estimates his backpack is about 12 centimeters tall.

could be crazy

D. Kim says her brother is about 1 meter tall. He says he is about 100 centimeters tall.

could be crazy

Name _____ Date _____

2. Grace is measuring the height of a building. Which unit should she use? Circle one.

meters centimeters yards inches

3. **A.** Grace is measuring the height of a dollhouse. Which unit should she use? Circle one.

meters centimeters yards inches

B. Explain your thinking.

Palm Variation: Our Class Data Table

Name	Palm in Centimeters

Name _____ Date _____

Palm Variation: At Home

Homework

Dear Family Member:

Students measured the size of their palms to look at how they vary. Help your child measure the palms of five different people. Measure to the nearest whole centimeter. He or she will then organize the data into a line plot.

Thank you.

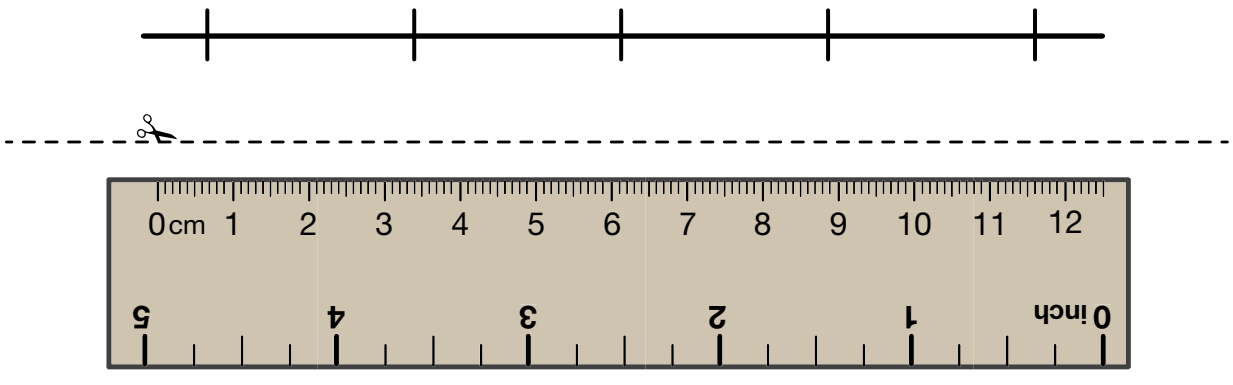
1. Measure the palms of 5 people in centimeters.

Palm Variation: At Home

Name	Palm in Centimeters

2. Organize the data into a line plot.

Palms in Centimeters: At Home

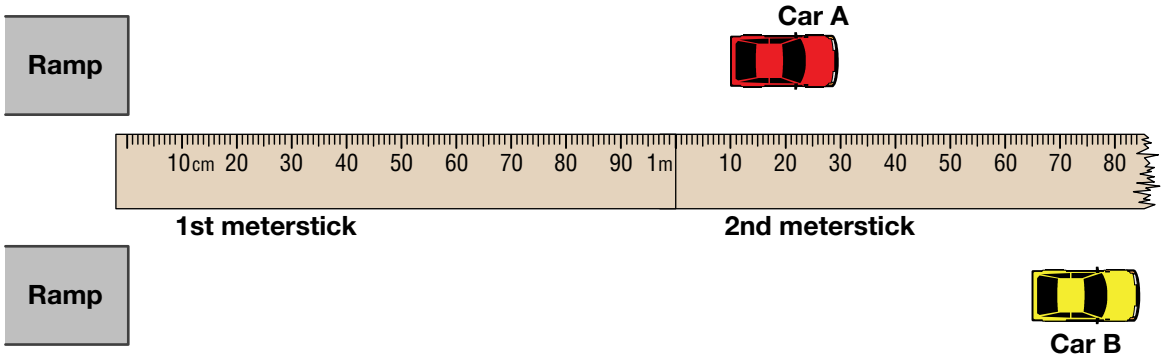


Name _____ Date _____

Rolling Cars

Homework

This drawing shows two cars rolling down ramps from above. Remember to measure from the back wheels.



1. How far did Car A roll? _____

2. How far did Car B roll? _____

3. How much farther did Car B roll than Car A? Show how you found your answer.

_____

_____

4. Sam's car rolled 90 cm. How much farther did Car A roll than Sam's car?

_____

5. How much farther did Car B roll than Sam's car?

_____

Name _____ Date _____

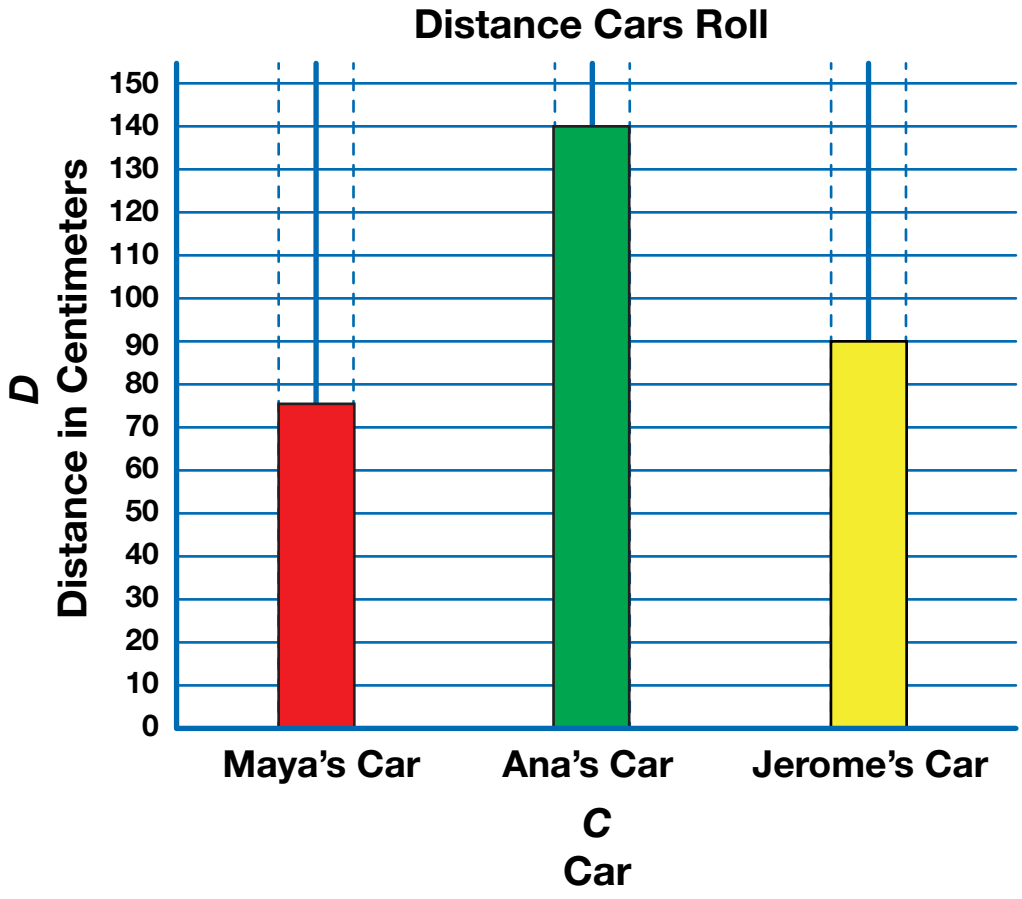
Make It True

Homework

Dear Family Member:

Your child has been learning to read and interpret graphs and then use the information to solve problems. Have your child explain how he or she found the answers to these questions using the graph.

Thank you.



Read each sentence. Look at the graph to see if it is true or false.

- **Circle true or false following the sentence.**
- **If it is false, correct the sentence to make it true. Use the space below each sentence for any corrections.**

Name _____ Date _____

1. Jerome's car rolled the farthest.

True False

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2. Maya's car rolled 70 cm.

True False

---

3. Maya's car rolled 15 cm farther than Jerome's car.

True False

---

4. Ana's car rolled 50 cm farther than Jerome's car.

True False

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5. Show or tell how you solved Question 4.

6. Use the data in the graph to write a true sentence.