Name _____

Topic 19

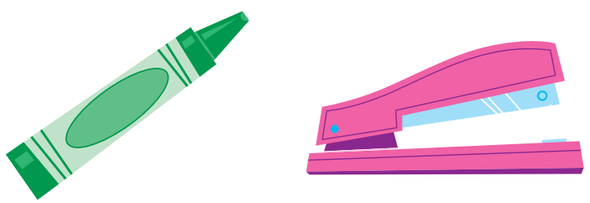
Measurement

Review What You Know

1. Use cubes to find the length of the rectangle.

_____ cubes

2. Circle the item that is heavier.



Home-School Connection

Dear Family,

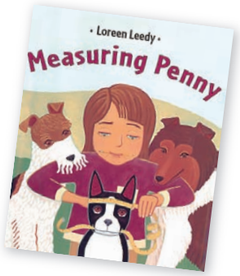
Today my class started Topic 19, **Measurement.** I will learn to estimate and measure length, volume, and weight. Here are some of the new math words I will be learning and some things we can do to help me with my math.

Love, _____

Book to Read

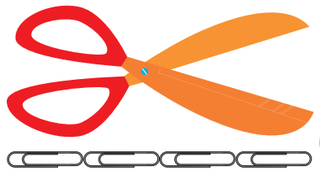
Reading math stories reinforces concepts. Look for this title in your local library:

Measuring Penny by Loreen Leedy
(Holt, 2000)



Home Activity

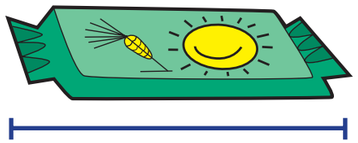
Have your child measure different small objects in your house using pennies or paper clips.



My New Math Words

estimate

When you estimate, you make a good guess.



The cereal bar is about 3 cubes long.

longest

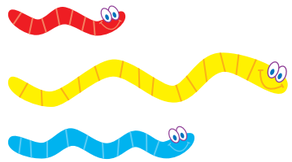
greatest in length

The green pencil is the longest.

shortest

least in length

The red worm is the shortest.



Measure Up!

How to play

Number of players: 2

1. Take turns. Spin the spinner.
2. Place that number of connecting cubes on a vine.
3. Stop when you reach the top of a vine, and say how many cubes tall the vine is.
4. Keep playing until you have covered each vine.

What you need

30 connecting cubes

1 paper clip

1 pencil

Name _____

Interactive Learning Lesson 19-1

Comparing and Ordering by Length

1.

Longest	
Shortest	

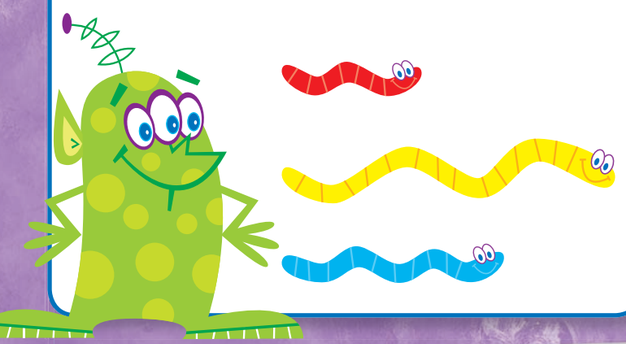
2.

Longest	
Shortest	

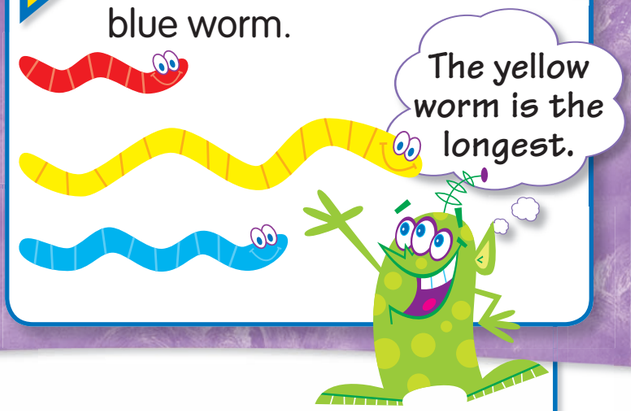
Home Connection Your child put three objects in order from longest to shortest.
Home Activity Give your child three household items of different lengths (such as a remote control, a pencil, and a spoon). Ask him or her to put them in order from longest to shortest.

MG 1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit. Also **MG 1.0.**

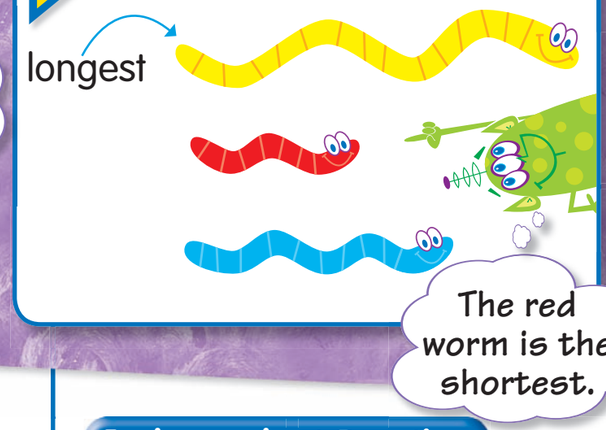
You can put the worms in order from **longest** to **shortest**.



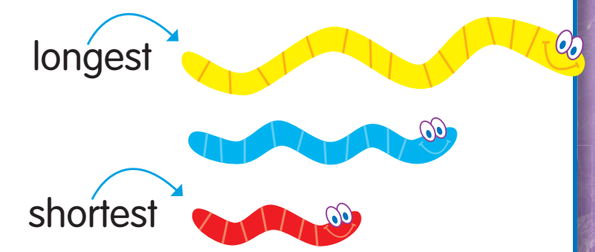
The yellow worm is longer than the red worm and the blue worm.



The red worm is shorter than the blue worm.



Now the worms are in order from longest to shortest.



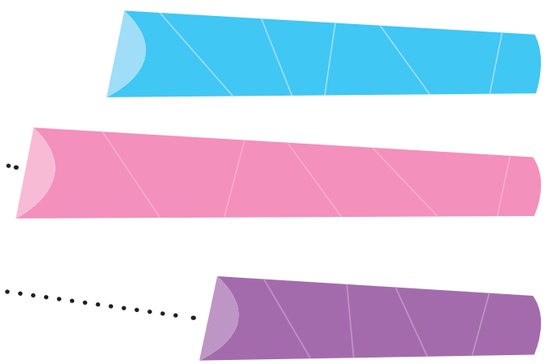
Guided Practice

Draw lines to show which object is longest and which is shortest.

1.

longest .....

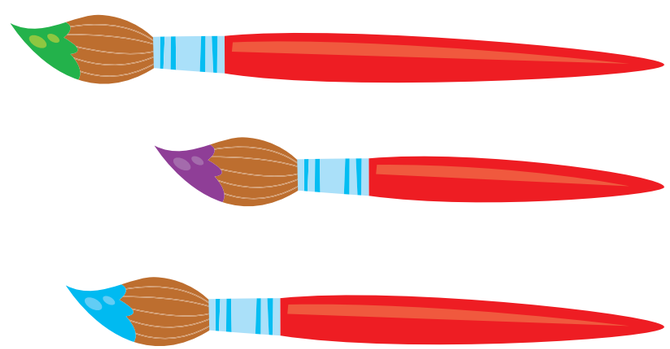
shortest .....



2.

longest

shortest



Do you understand? How do you know you made the correct matches in Exercise 2?

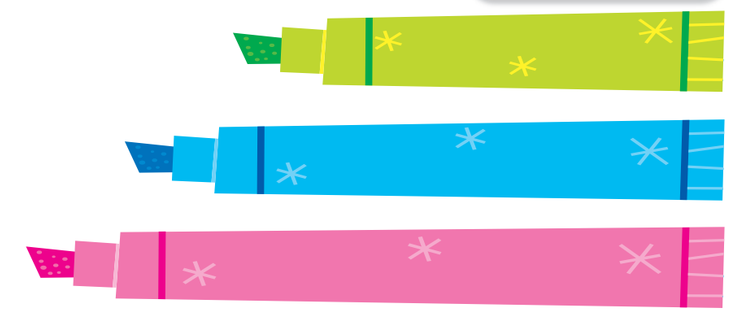
Independent Practice

Word Bank
longest
shortest

Draw lines to show which object is longest and which is shortest.

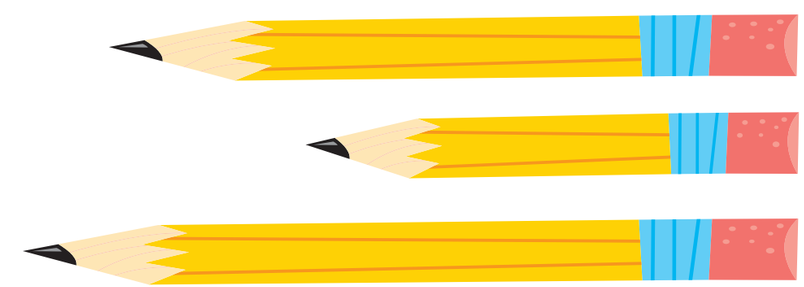
3. longest

shortest

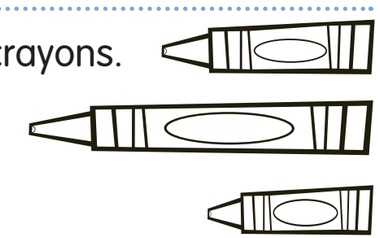


4. longest

shortest



Spatial Thinking Use the clues to color the crayons.



5. The shortest crayon is orange. The blue crayon is longer than the green crayon.

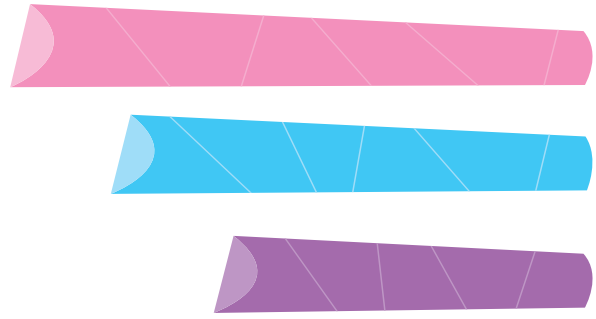
Problem Solving

Solve the problems below.

6. Tomaz painted the longest line. What color line did he paint? Use the pictures to solve.

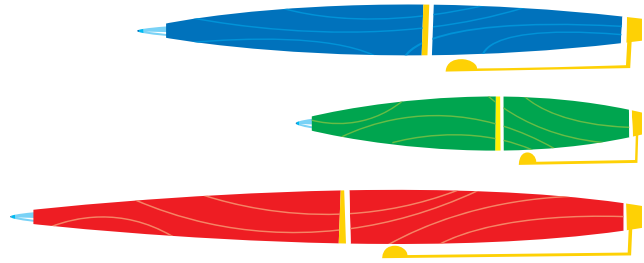
_____

7. Amber has the shortest piece of chalk. What color is Amber's chalk? Use the pictures to solve.



_____

8. Which best describes the pens?



The blue pen is longest.	The red pen is longest.	The green pen is longest.	The blue pen is shortest.
○	○	○	○

9. **Journal** Draw 3 lines with different lengths in order from longest to shortest. Label the longest and shortest lines.

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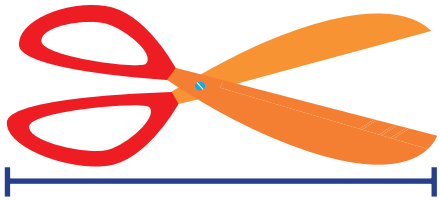
Name _____

Interactive Learning Lesson 19-2

Using Units to Estimate and Measure Length

	Estimate	Measure
1. 	about _____ 	_____ 
2. 	about _____ 	_____ 
3. 	about _____ 	_____ 
4.	about _____ 	_____ 

Home Connection Your child used cubes to estimate and measure the length of classroom objects.
Home Activity Give your child a handful of paper clips or pennies. Ask him or her to estimate and measure the length of a small household object, such as a spoon, using the paper clips or pennies.

MG 1.0 Students use direct comparison and nonstandard units to describe the measurements of objects. Also **MR 1.2.**

About how long is the crayon?

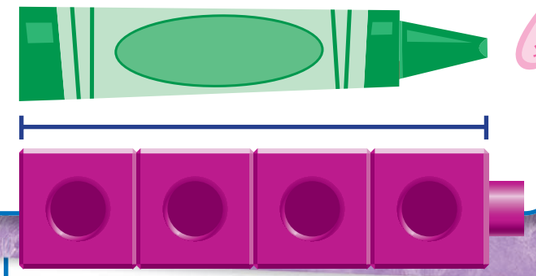
You can use cubes to **estimate**.

Estimate: about 3

The crayon looks like it is about 3 cubes long.

Check the estimate. **Measure** with cubes.

Measure: 4



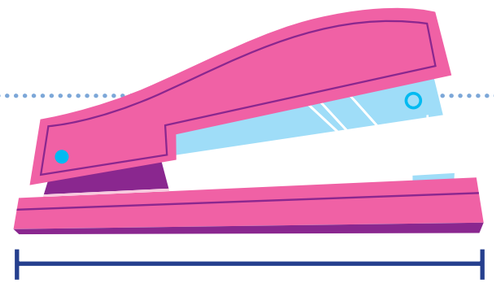
Estimate: about 3

Measure: 4

My estimate was close. The crayon is 4 cubes long.

Guided Practice

Estimate the length. Then use cubes to measure.

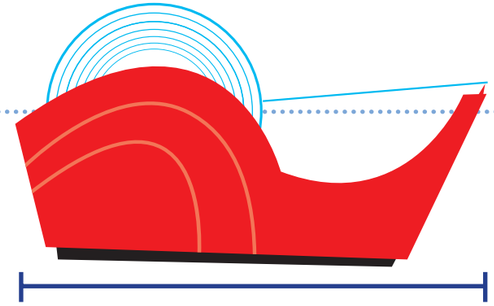
		Estimate	Measure
1.		about 5	4
2.		about ____	____
3.		about ____	____

Do you understand? Is about 10 cubes a good estimate for Exercise 3? Explain.

Independent Practice

Estimate the length. Then use cubes to measure.

Word Bank
estimate
measure

		Estimate	Measure
4.		about ____	____
5.		about ____	____
6.		about ____	____

Estimation

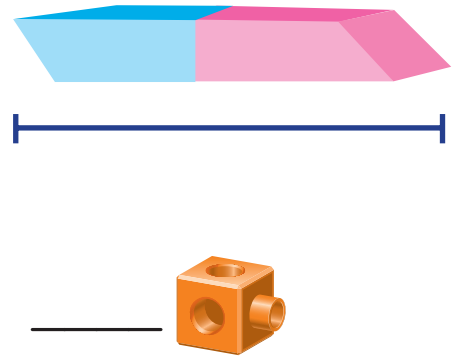
7. About how many cubes tall is the calculator?

about ____

Problem Solving

Solve the problems below.

8. Julie has an eraser. How long is it? Write the number. Julie has a box 6 cubes long. Will her eraser fit into the box? Circle yes or no. Use cubes to solve.



_____

yes or no

9. Which is the best estimate for the length of the marker?

1 ○ 3 ○ 7 ○ 20 ○

10. Journal Find an object that looks like it is about 10 long. Measure it.

Object: _____ Measure: _____

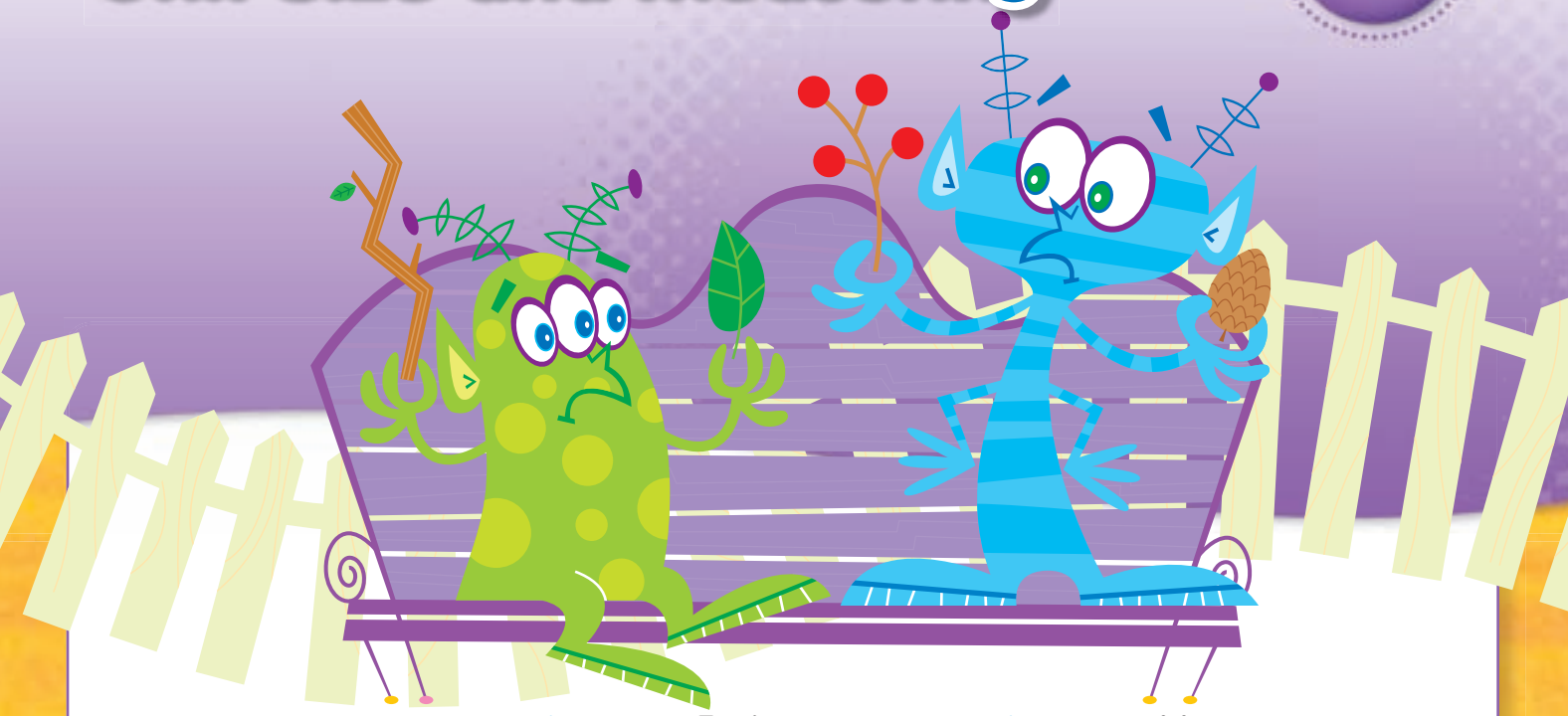
FOLD

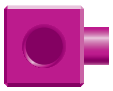
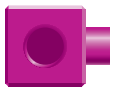
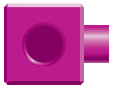
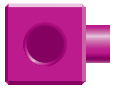
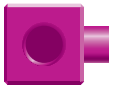
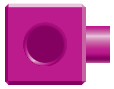
FOLD

Name _____

Unit Size and Measuring

Interactive Learning Lesson 19-3



	Estimate	Measure
1.	more 	_____ 
	more 	_____ 
2.	more 	_____ 
	more 	_____ 
3.	fewer 	_____ 
	fewer 	_____ 

Home Connection Your child used cubes and paper clips to measure the length of different items.
Home Activity Show your child two small items of different lengths, such as a toothpick and a paper clip. Ask him or her which they would need more of to measure the length of the kitchen table. Then have your child use the items to check his or her prediction.

MG 1.0 Students use direct comparison and nonstandard units to describe the measurements of objects. Also **MR 1.2, MR 2.1.**

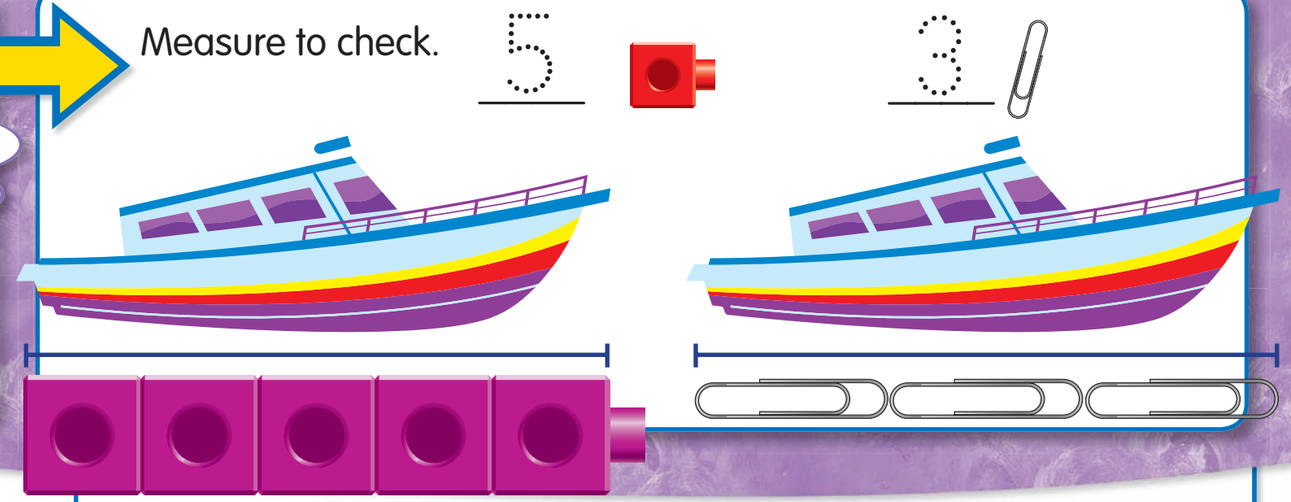
Do you need more ■ or more ▭ to measure the length of the toy boat?

Compare the cube and the paper clip.

The cubes are shorter so you need more cubes.

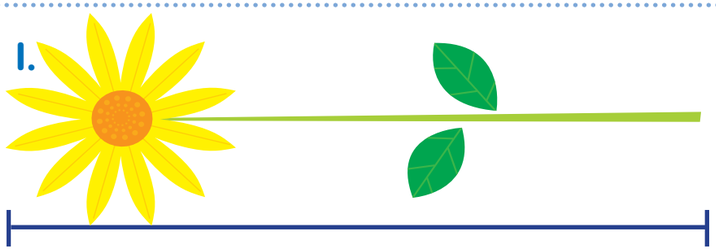
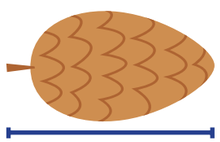
more ■ more 📎

Measure to check.



Guided Practice

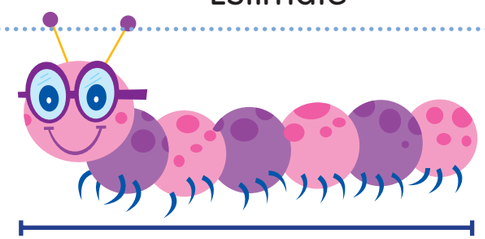
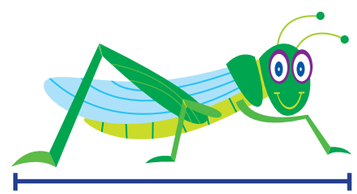
Circle your estimate. Measure to check.

	Estimate	Measure	
1. 	more ■ / more ▭	about 6 ■	about 4 📎
2. 	fewer ■ / fewer ▭	about ___ ■	about ___ 📎

Do you understand? Would you need fewer cubes or fewer paper clips to measure the length of your arm? Why?

Independent Practice

Circle your estimate. Measure to check.

	Estimate	Measure	
3. 	fewer ■ / fewer ▭	about ___ ■	about ___ 📎
4. 	more ■ / more ▭	about ___ ■	about ___ 📎

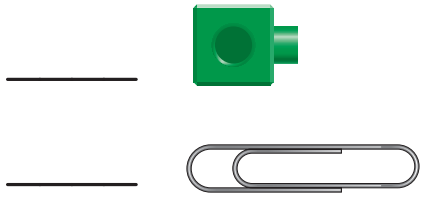
Reasonableness Circle your answer.

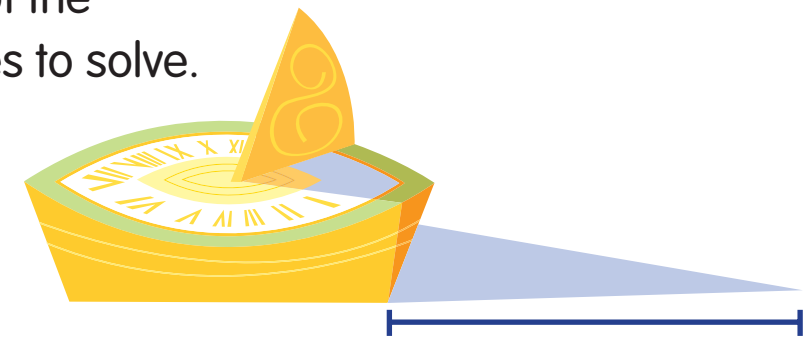
5. Kevin sees a worm that is 10 cubes long. About how many paper clips long could it be? 6 ▭ 10 ▭ 15 ▭

Problem Solving

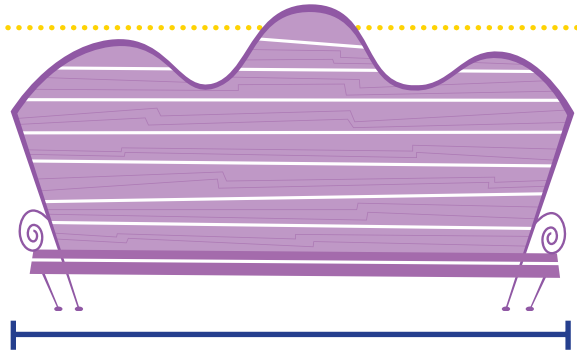
Solve the problems below.

6. Carmen made a sundial.
How long is the picture of the shadow? Use the pictures to solve.

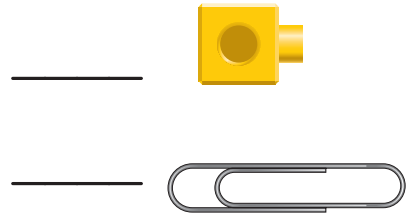




7. Which object would it take the most of to measure the length of the bench?



8. **Journal** Choose a classroom object. Draw the object. Measure the object with cubes and paper clips.



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FOLD

Name _____

Interactive Learning Lesson 19-4

Comparing and Ordering by Volume

1.

A	B	C

_____ _____ _____

takes up the most space — takes up the least space

2.

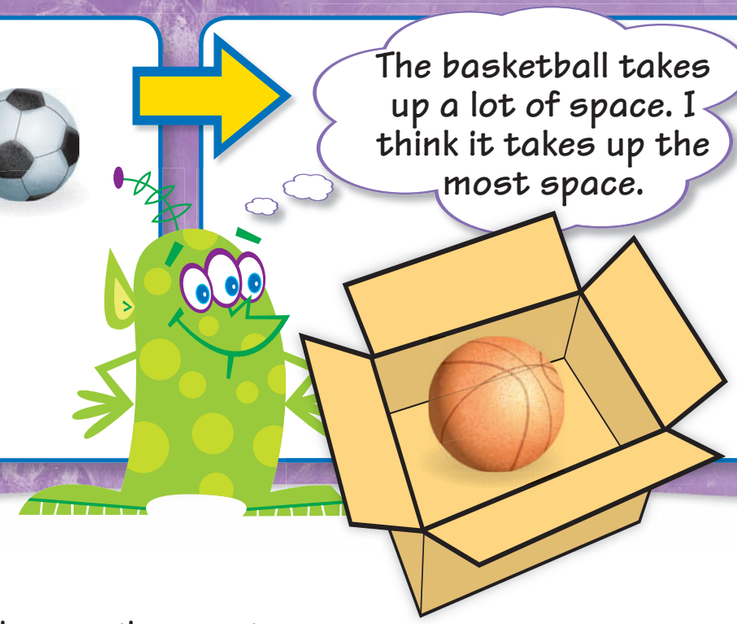
A	B	C

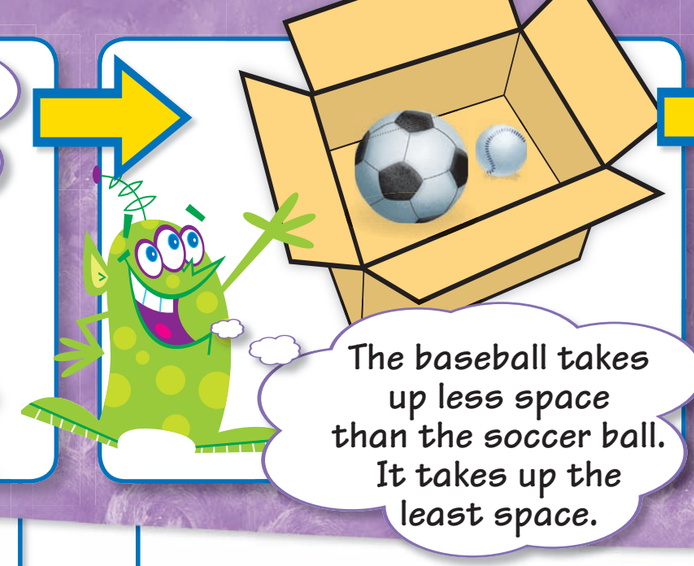
_____ _____ _____

takes up the most space — takes up the least space

Home Connection Your child compared and ordered objects by their volumes.
Home Activity Choose 3 items of different sizes and place them in a shoebox. Ask your child to identify the item that takes up the most space and the item that takes up the least space.
MG 1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a non-standard unit.

Which ball takes up the most space? Which ball takes up the least space?





Put the balls in order.

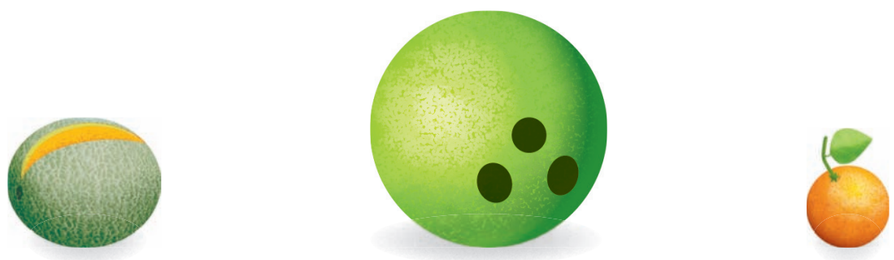
Takes up the most space

Takes up the least space

Guided Practice

Circle the object that takes up the most space.
Put an X on the object that takes up the least space.

1.



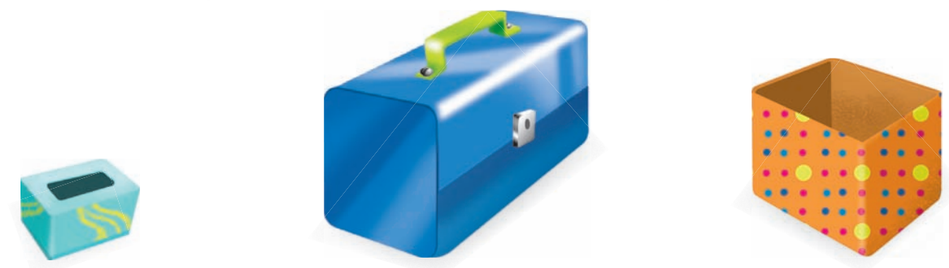
2.

Do you understand? How would you order the objects in Exercise 2 from the one that takes up the most space to the one that takes up the least space?

Independent Practice

Circle the object that takes up the most space.
Put an X on the object that takes up the least space.

3.



4.

Reasoning Use the clues to put the bags in order from takes up the least space to takes up the most space. Write the color names.

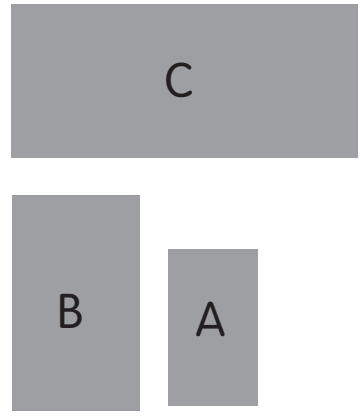
5. The yellow bag takes up less space than the red bag.
The blue bag takes up less space than the yellow bag.

_____ bag _____ bag _____ bag
least space most space

Problem Solving

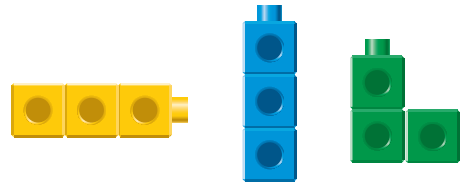
Solve the problems below.

6. Seth has 3 boxes in his closet.
The green box takes up the most space.
The yellow box takes up less space than the blue box. Which box is blue?
Use the pictures to solve.



_____

7. Which sentence best describes the objects?



The yellow cubes take up the most space.	The blue cubes take up the least space.	The green cubes take up the most space.	Each set of cubes take up the same space.
○	○	○	○

8. **Journal** Draw 3 objects of different sizes.
Put them in order from the one that takes up the most space to the one that takes up the least space.

takes up the most space		takes up the least space

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FOLD

Name _____

Interactive Learning Lesson 19-5

Comparing and Ordering by Weight

1.

A	B	C

_____ heaviest

_____

_____ lightest

2.

A	B	C

_____ heaviest

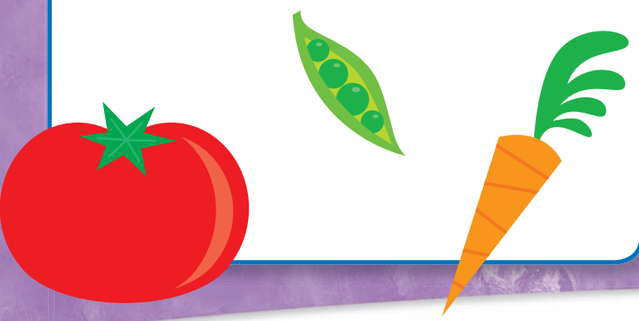
_____

_____ lightest

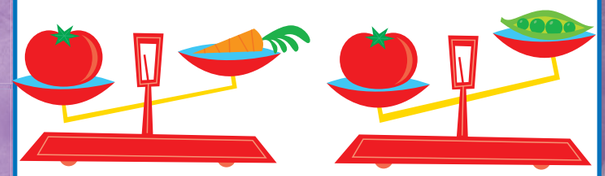
Home Connection Your child used a balance scale to compare and order the weight of objects.
Home Activity Give your child three household items of different weights. Ask him or her to put them in order from heaviest to lightest.

MG 1.1 Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit. Also **MG 1.0.**

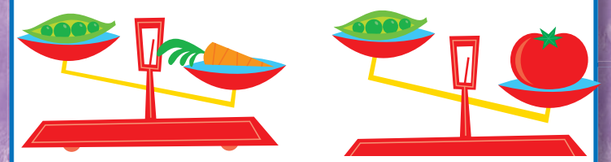
Which object is the heaviest?
Which is the lightest?



The tomato is the heaviest.



The peapod is the lightest.

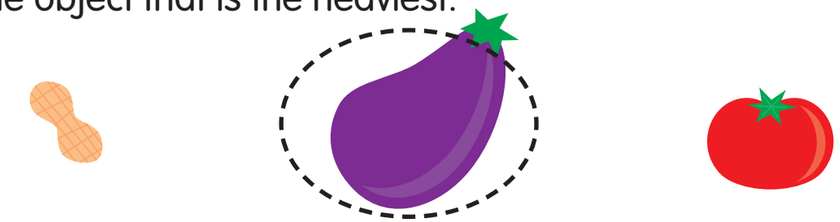


The objects are in order from heaviest to lightest.

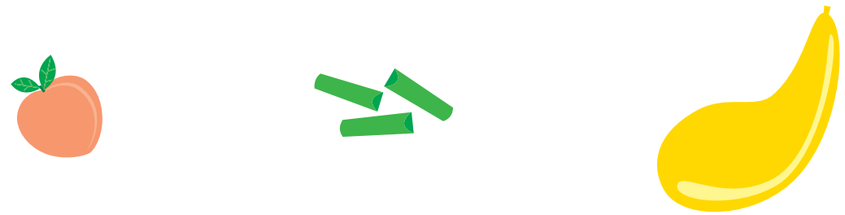
Guided Practice

Circle the object that is the heaviest.

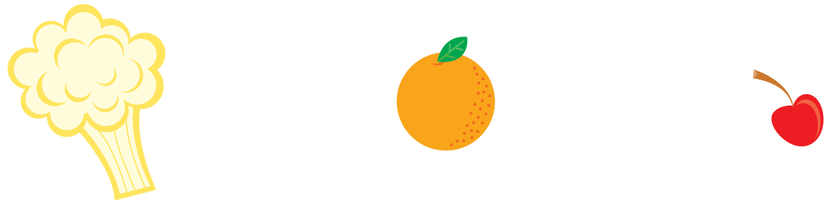
1.



2.



3.



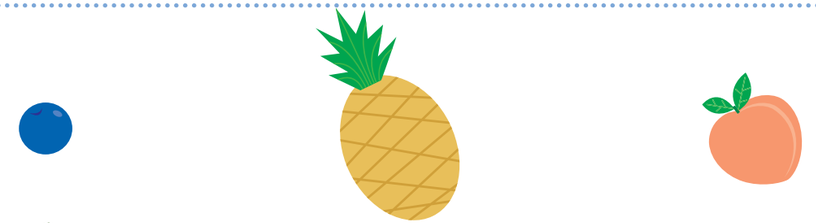
Do you understand? Look at Exercise 3. How would you order the objects from heaviest to lightest? Explain.

Independent Practice

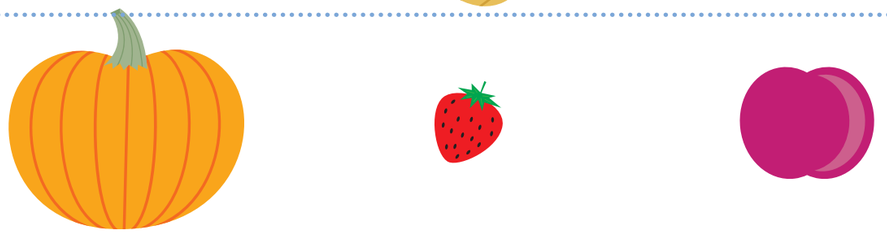
Circle the object that is the lightest.

4.

5.



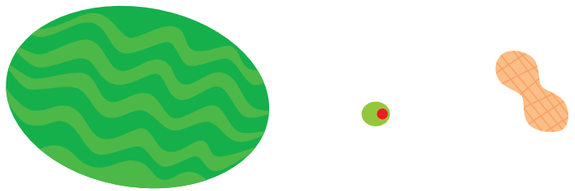
6.



Reasoning Use the pictures to answer the question.

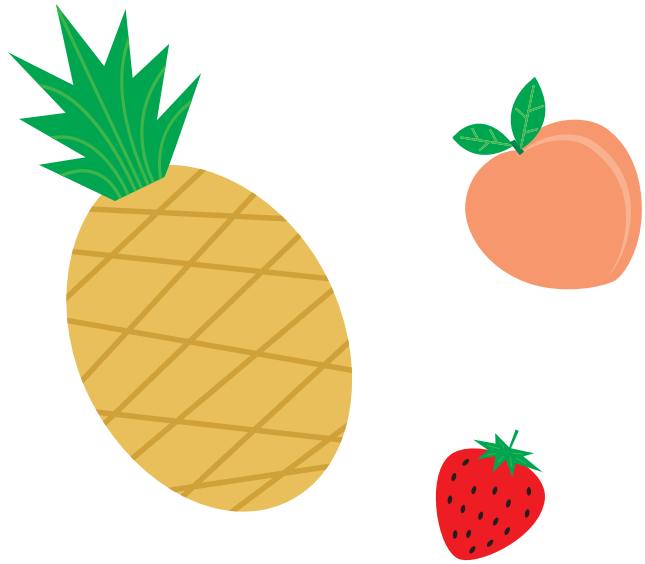
7. Which object is heavier than an apple?

_____



Problem Solving

Solve the problems below.
Kate bought her favorite fruits.
Use the pictures to solve



8. Which fruit is the heaviest?

_____

9. Which fruit is the lightest?

_____

10. Which list shows the fruits in order from heaviest to lightest?

watermelon grape apple	grape apple watermelon	watermelon apple grape	apple grape watermelon
○	○	○	○

11. **Journal** Draw or write the names of 3 animals in order from heaviest to lightest.

heaviest lightest

FOLD

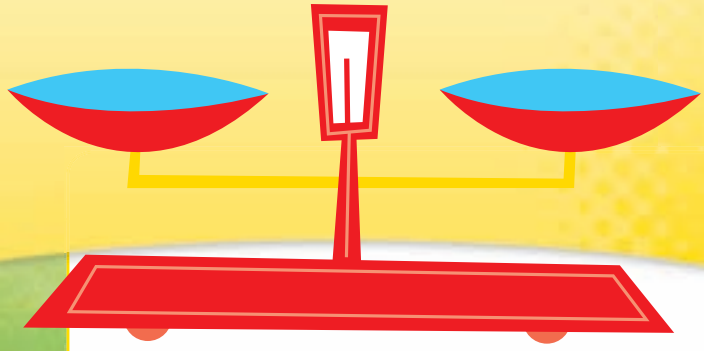
FOLD

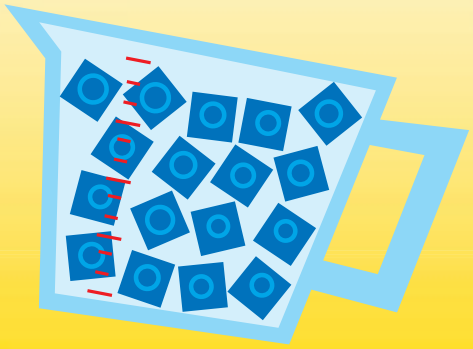
Name _____

Interactive Learning Lesson 19-6

Problem Solving

Use Reasoning





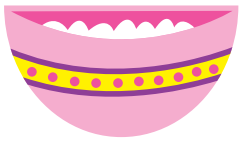
1.

	Way 1	Way 2	Way 3
			

2.

	Way 1	Way 2	Way 3
			

3.

	Way 1	Way 2	Way 3
			

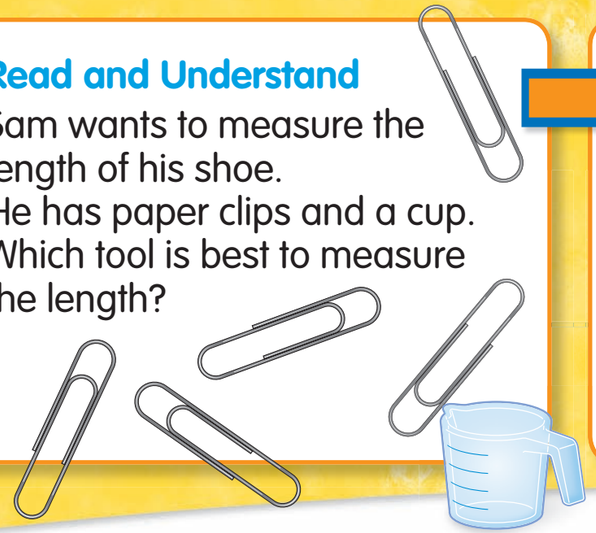
Home Connection Your child measured objects in more than one way and chose the best tool for measuring length, weight, and capacity.

Home Activity With your child, see how many measuring tools (measuring cups, a scale, a thermometer, a ruler, etc.) you can find at home. Discuss what things you can measure with each one.

MR 1.1 Determine the approach, materials, and strategies to be used. Also **MG 1.0.**

Read and Understand

Sam wants to measure the length of his shoe.
He has paper clips and a cup.
Which tool is best to measure the length?



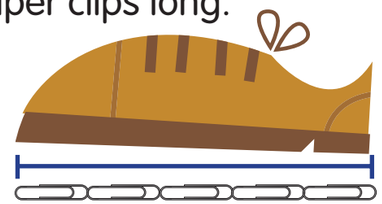
Plan

Paper clips can be used to measure length.

Cups are better used to measure how much something holds.

Solve

Sam chooses the paper clips.
His shoe is about 5 paper clips long.



Look Back and Check

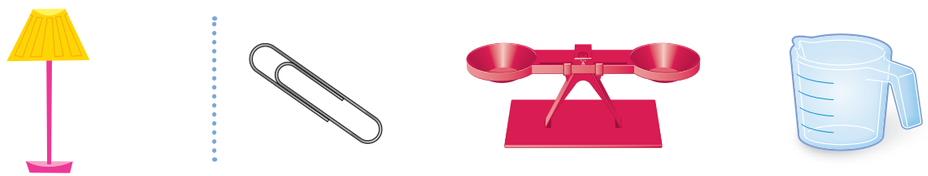
The paper clips were the best tool.

Guided Practice

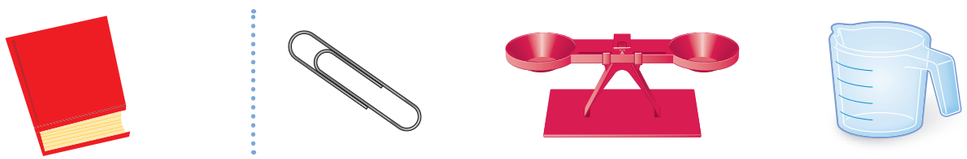
Circle the best tool to use for the measurement.

1. How much does it hold?

2. How tall is it?



3. How heavy is it?

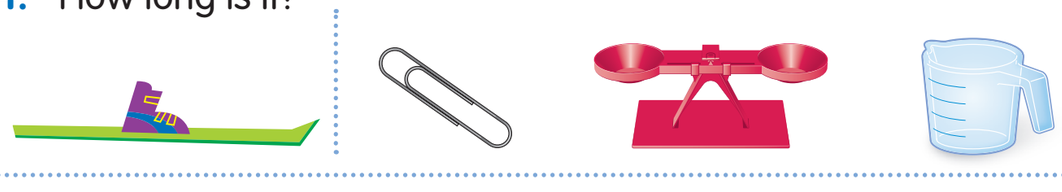


Do you understand? What other ways can you measure a pitcher? Which tools can you use?

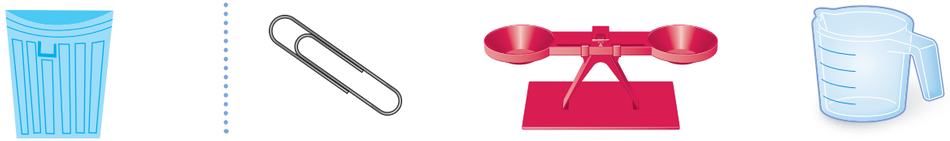
Independent Practice

Circle the best tool to use for the measurement.

4. How long is it?

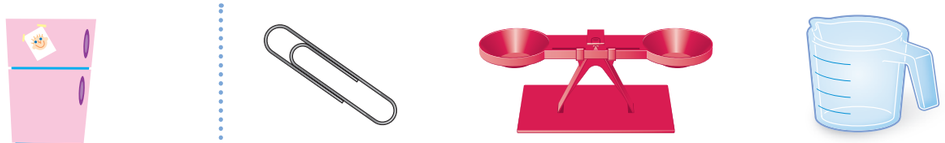


5. How heavy is it?



6. How much does it hold?

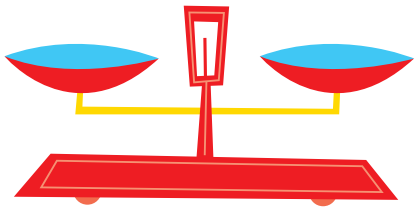
7. How wide is it?

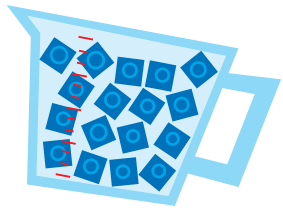


Problem Solving

Solve the problems below.

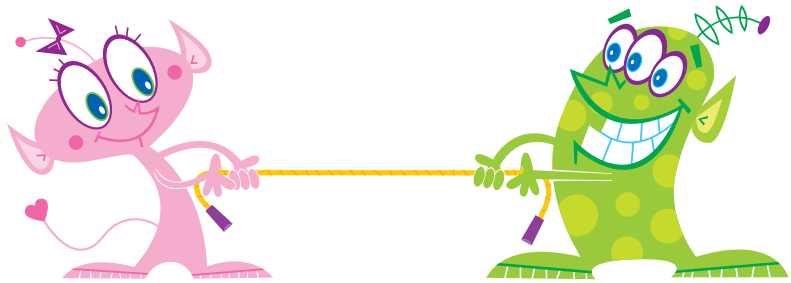
8. Megan wants to make popcorn. Which tool should she use to see how much popcorn her bowl will hold? Circle your answer.





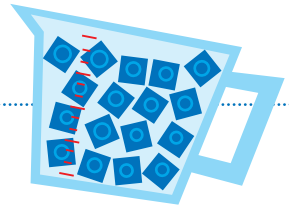
9. Mike and his friend have a jump rope. They want to use the jump rope to measure.

What can they measure?



Volume	Weight	Length	Temperature
○	○	○	○

10. Journal Draw something you could measure with this tool.



FOLD

FOLD

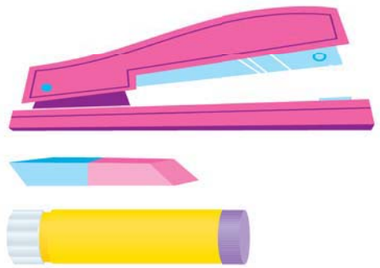
Topic 19

Test

Name _____

1

- ◯ eraser, glue stick, stapler
- ◯ glue stick, stapler, eraser
- ◯ stapler, eraser, glue stick
- ◯ stapler, glue stick, eraser



2

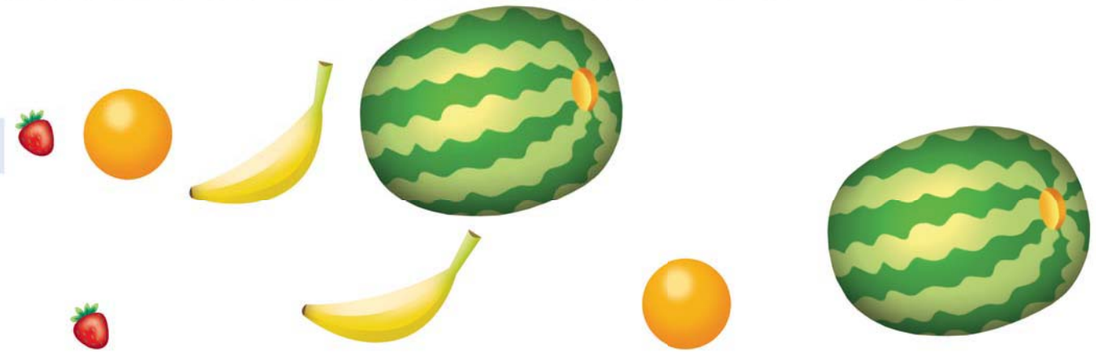
15 cubes	7 cubes	4 cubes	2 cubes
◯	◯	◯	◯

3

- ◯ 
- ◯ 
- ◯ 
- ◯ 

Oral Directions Say: Mark the correct answer. **1.** Which list shows the items in order from longest to shortest? **2.** Use cubes to find the length of the pencil. Mark your answer. **3.** Which object would it take the most of to measure the rectangle?

4

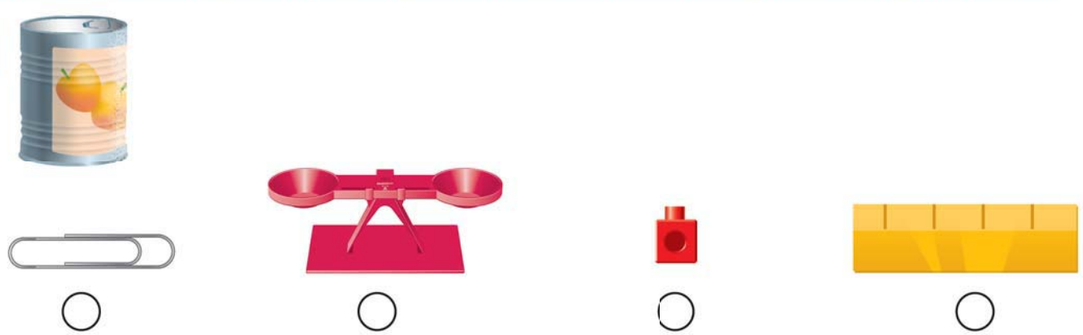


◯	◯	◯	◯

5

- ◯ feather, cap, book
- ◯ cap, feather, book
- ◯ book, cap, feather
- ◯ book, feather, cap

6



◯	◯	◯	◯

Oral Directions Say: Mark the correct answer. **4.** Which object takes up the most space? **5.** Which list shows the items in order from heaviest to lightest? **6.** Which tool would you use to measure how heavy the can is?

Topic 19

Reteaching

Set A

You can compare lengths of objects and put them in order from shortest to longest.

shortest

longest

The paper clip is shorter than the eraser and the pencil.
The paper clip is the shortest.

Draw lines to show which object is shortest and which is longest.

1

shortest longest

2

shortest longest

Set B

You can measure length using different objects.

about 1 about 2

The paper clip is longer, so you need fewer paper clips.

Measure with and .
Circle which takes fewer.

3 A pencil

about _____

about _____

4 A crayon

about _____

about _____

Set C

You can compare and order objects by weight.

heaviest lightest

Circle the object that is heaviest.
Put an X on the object that is lightest.

5

6

Set D

You can choose the best tool for measuring.
Jane wants to find out how long her paintbrush is.
Which tool should she use?

Circle the best tool for the measurement.

7 How tall is it?

8 How heavy is it?