

1.9

SOL'S / SCOPE & SEQUENCE / BLUEPRINTS

Math

1.12

STRATEGIES/ACTIVITIES

- students will use paper clip,string teddy bear, counters to measure width and length
- students will use teddy bear and dinosaur counter to weigh objects on a balance scale

RESOURCES

- AIMS: Seasoning With Math and Science, "Body-Sauvus"; Spring Into Math and Science, "Feet Findings"; Fall Into Math and Science, "How Tall Are You?"; Bats Incredible, "Spread Your Wings"; Under Construction, "Mitts for Kits"
- see attached sheets
- LITERATURE CONNECTIONS:
Bigger and Smaller by Robert Froman
How Big Is a Foot? By Rolf Myller
Inch by Inch by Leo Lionni
Is It Larger? Is It Smaller? By Tana Hoban
Long, Short, High, Low, Thin, Wide by James Fey
Measurement: Fun, Facts, and Activities by Caroline Arnold
Reading the Numbers: A Survival Guide to the Measurement, Numbers, and Sizes Encountered In Everyday Life by Mary Blocksma
Ten Beads Tall by Pam Adams
The Inch Boy by Junko Morimoto

Hands On Activities For Measurement

Skills

Compare length, mass, and capacity of objects

- Estimate and measure length, mass, and capacity in non-standard units
- Estimate and measure length in standard units (inches/centimeters, yards/meters)
- Estimate and measure capacity in standard units (cup, pint, quart, liter)
- Estimate and measure mass in standard units (pounds, ounces/grams)

Learning Center

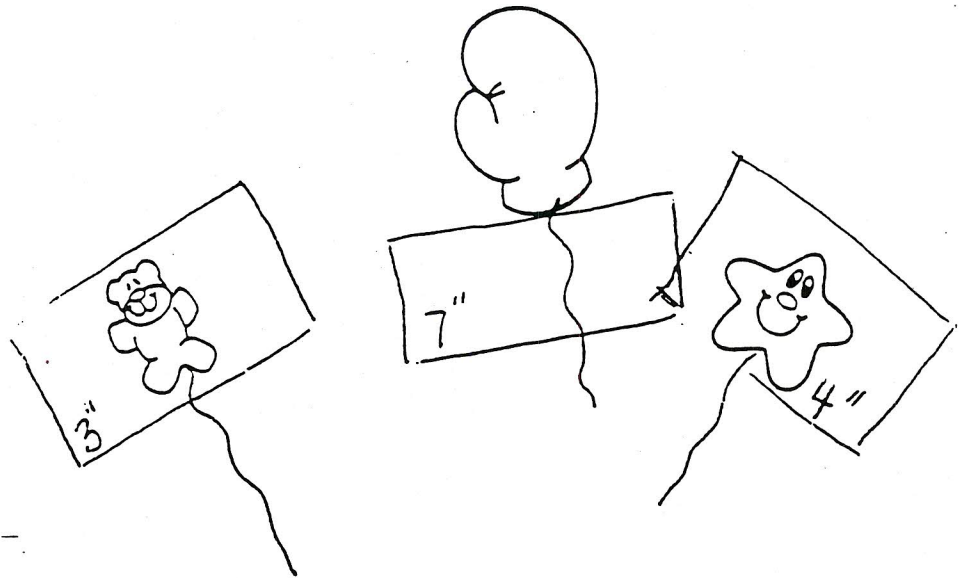
Children need many opportunities to explore measurement using a wide variety of standard and non-standard units of measure. Set up a center where students can work independently to make new discoveries and to confirm previous learnings. Students can use the

following materials for measuring length, mass, and capacity:

- ▲ non-standard units for measurement (strings, blocks, paper strips, straws, etc.)
- ▲ objects of different lengths
- ▲ assortment of curved objects to be measured with strings
- ▲ inch and centimeter rulers
- ▲ yardstick/meter stick
- ▲ cloth and/or metal tape measures
- ▲ balance scale
- ▲ bathroom, kitchen, and postal scales
- ▲ assorted objects to weigh
- ▲ measuring cups and spoons
- ▲ pint, quart, and liter containers
- ▲ tub of rice

Materials

- string
- scissors
- index cards, 1 per student
- tape
- pencils
- ruler/yardstick/meter stick (optional)

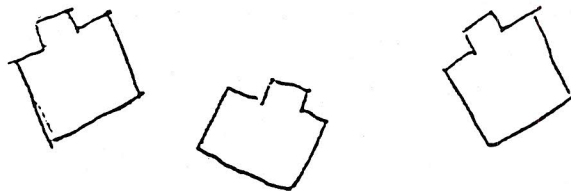


Activity

Give each child a piece of string and an index card. Have students find an object in the classroom, measure it with the string, and cut the string the same length as the object. Next, they draw a picture of the object on the index card and tape the string to the card. Display these on the wall, or place them at the measuring center for other children to use. Classmates can confirm the measurements or find other objects about the same length. They can also use a ruler, yardstick, or meter stick to measure the strings.

Materials

- plastic linking cubes, 20-30 per group
- slips of paper
- hat or box
- pencils



Activity

Write the names (or draw pictures) of classroom objects on the slips of paper. Place the papers in a hat or box. Divide the children into groups of three or four. Give each group the linking cubes. (Students can use building blocks to measure larger objects.) Have each group draw a slip of paper from the hat, find the object shown, and make a tower as tall as the object. Encourage students to estimate before they measure and to record the estimate and the actual measurement on the slip of paper. Let children try measuring a number of different objects.

Adapted from:

Materials

- pieces of string, assorted lengths (2"-20"), 1 per student

Activity

Give each child a piece of string. Model how to measure length correctly by matching the end of the string with the edge of an object. Then ask students to find an object in the classroom that is about the same length as their string. Let each child share his or her match with the rest of the class. Have children exchange strings and repeat the activity. Or, place the strings at a center for independent exploration.

Materials

math collections

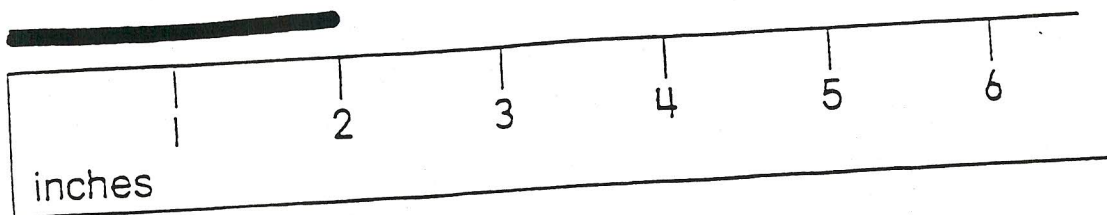
- 18" x 24" construction paper, 1 per student
- file folders, 1 per pair
- cubes (optional)

Activity

Divide the class into groups of two. Give each child a piece of construction paper and a handful of manipulatives. (Partners should have the same kind of manipulative.) One child places some objects in a row on his paper. The other child tries to make a row that is the same length on her paper. Next, students determine whether their rows are equal in length by lining them up side by side.

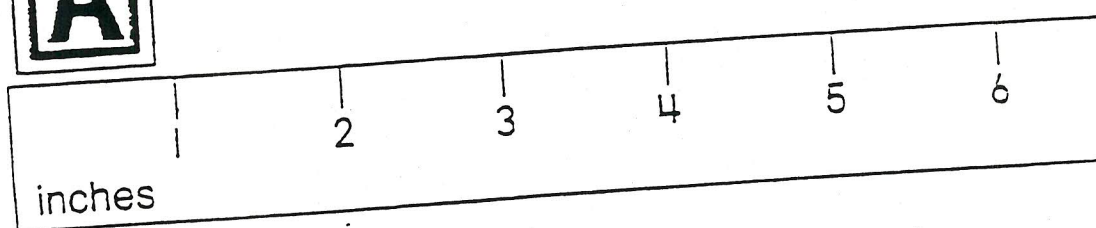
Extend this activity, by placing a partition between the partners after the initial look. Then students must rely on visual memory to make a row the same length. The partition is removed when it's time to compare the rows. Students can focus on height by doing this activity using wooden cubes to build towers.

Measure how long.



- 1 inch (A) 2 inches (B) 3 inches (C) 4 inches (D)

5. Measure how long.



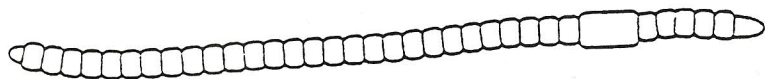
- 1 inch (A) 2 inches (B) 3 inches (C) 4 inches (D)

6. Estimate how long.



- 1 centimeter (A) 5 centimeters (B) 10 centimeters (C) 15 centimeters (D)

Estimate how long.



20 centimeters

(A)

3 centimeters

(B)

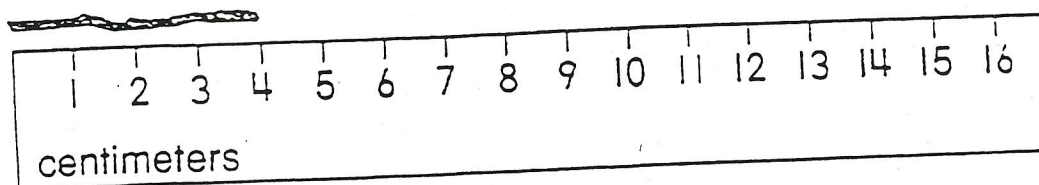
12 centimeters

(C)

1 centimeters

(D)

8. Measure how long.



4 centimeters

(A)

2 centimeters

(B)

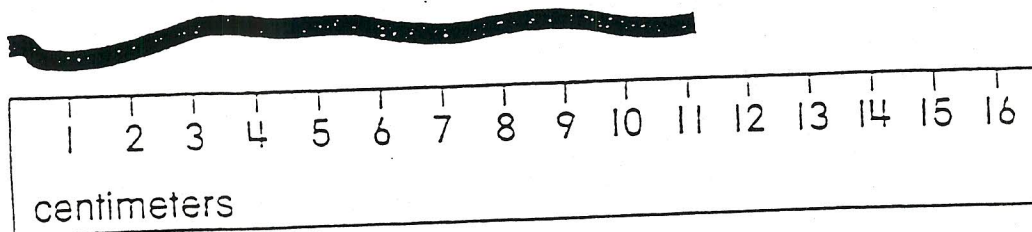
3 centimeters

(C)

1 centimeter

(D)

9. Measure how long.



16 centimeters

(A)

10 centimeters

(B)

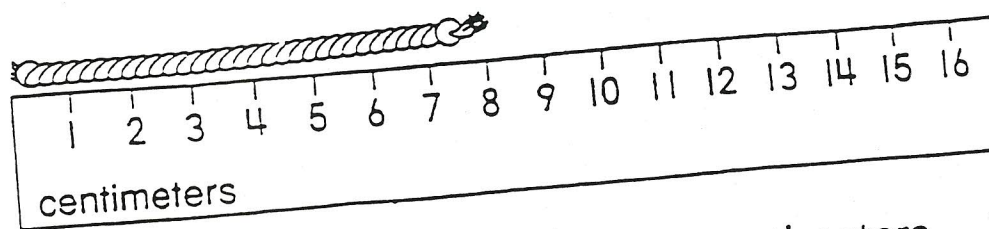
5 centimeters

(C)

11 centimeters

(D)

Measure how long.



6 centimeters

(A)

8 centimeters

(B)

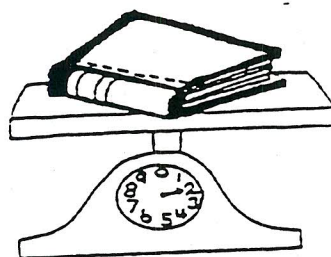
9 centimeters

(C)

7 centimeters

(D)

1. How many pounds?



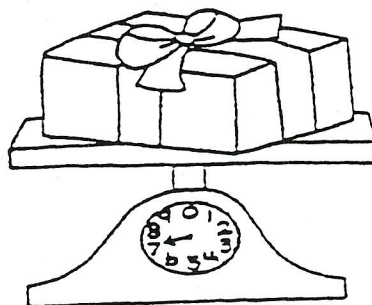
2 pounds

(A)

4 pounds

(B)

12. How many pounds.



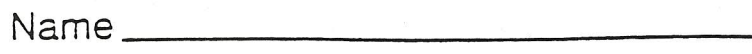
3 pounds

(A)

7 pounds

(B)

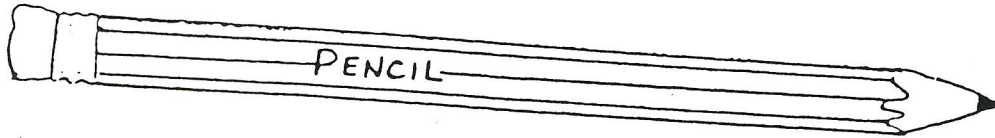
502 1.12



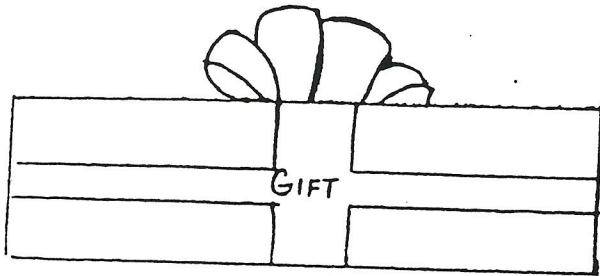
What I Measured	I Measured With	My Guess	Measurement

Non-Standard Units of Measurement Assessment

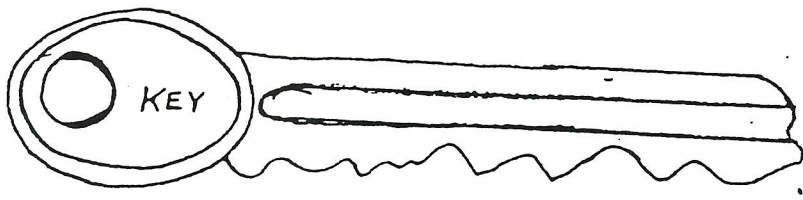
Measure How Many Inches



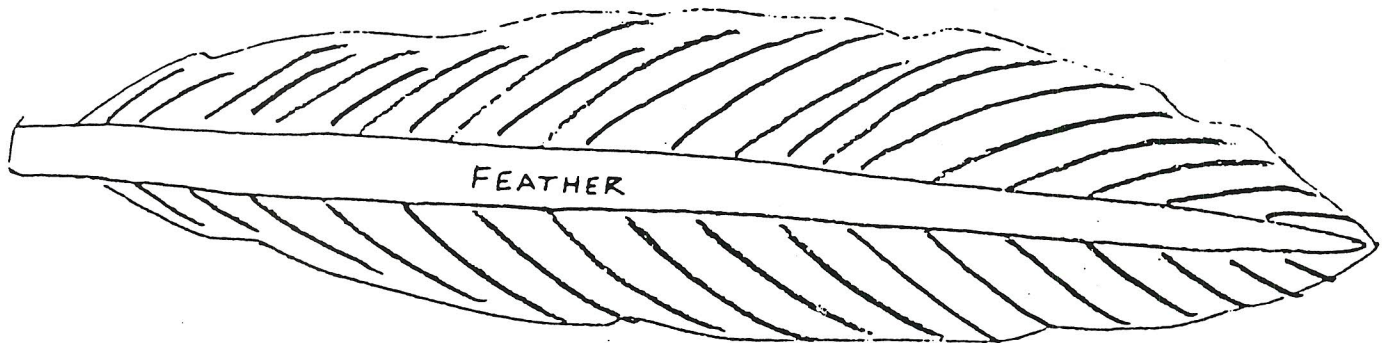
- (A) ☐ 8, (B) ☐ 5, (C) ☐ 1



- (A) ☐ 9, (B) ☐ 2 (C) ☐ 3



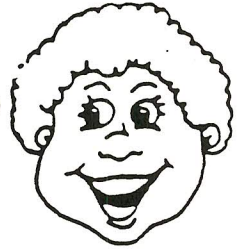
- (A) ☐ 4 (B) ☐ 12 (C) ☐ 5



- (A) ☐ 10, (B) ☐ 6 (C) ☐ 7

Measure Me

This is my handprint.
I measured my hand.



Length



Width



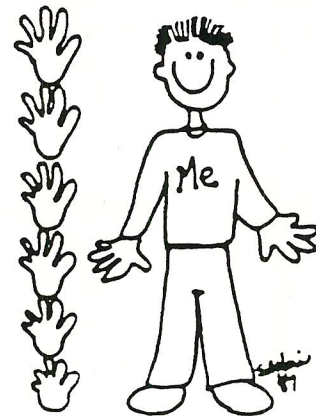
Thumb



Finger

I can use my
hand to measure.

I am _____ of
my hands tall.



Measure Me.

This is my footprint.
I measured my foot.



Length _____



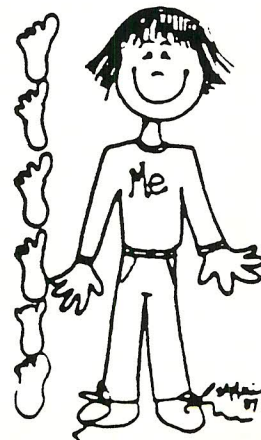
Width _____



Around _____

I can use my
foot to measure.

I am _____ of
my feet tall.



Name _____

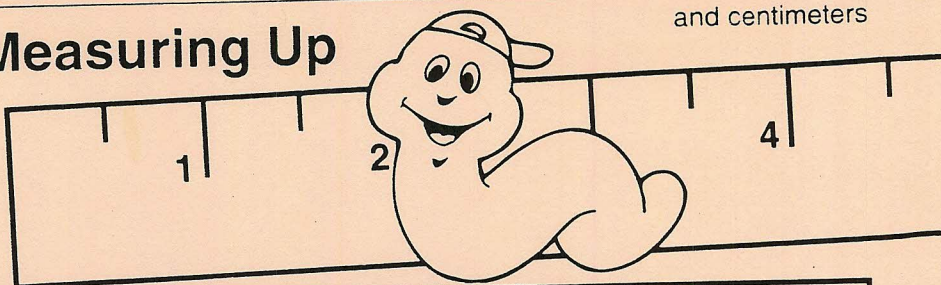
Measurement: inches
and centimeters

Measuring Up

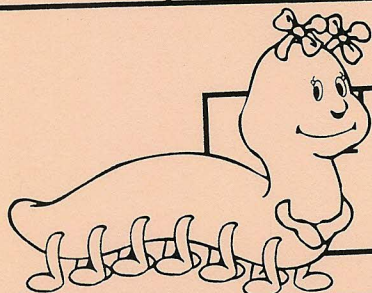
Fill in the chart.

Guess the length of each object.

Measure to find the length.



Things to measure in inches:	My guess:	My measurement:	Color a ☺ for each correct guess.
my pencil	_____ inches	_____ inches	☺
a crayon	_____ inches	_____ inches	☺
my thumb	_____ inches	_____ inches	☺
a pair of scissors	_____ inches	_____ inches	☺
my hand	_____ inches	_____ inches	☺



Things to measure in centimeters:	My guess:	My measurement:	Color a ☺ for each correct guess.
my pencil	_____ cm	_____ cm	☺
a crayon	_____ cm	_____ cm	☺
my thumb	_____ cm	_____ cm	☺
a pair of scissors	_____ cm	_____ cm	☺
my hand	_____ cm	_____ cm	☺

Name _____ Date _____

How Long Is It?

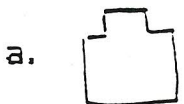
Choose an object in the classroom that you will measure.

1. Draw a picture of the object.

—
—
—
—
—

2. Write sentences describing your object.

3. Use the following items to measure "your" object. How many of each did it take to find the length of "your" object?



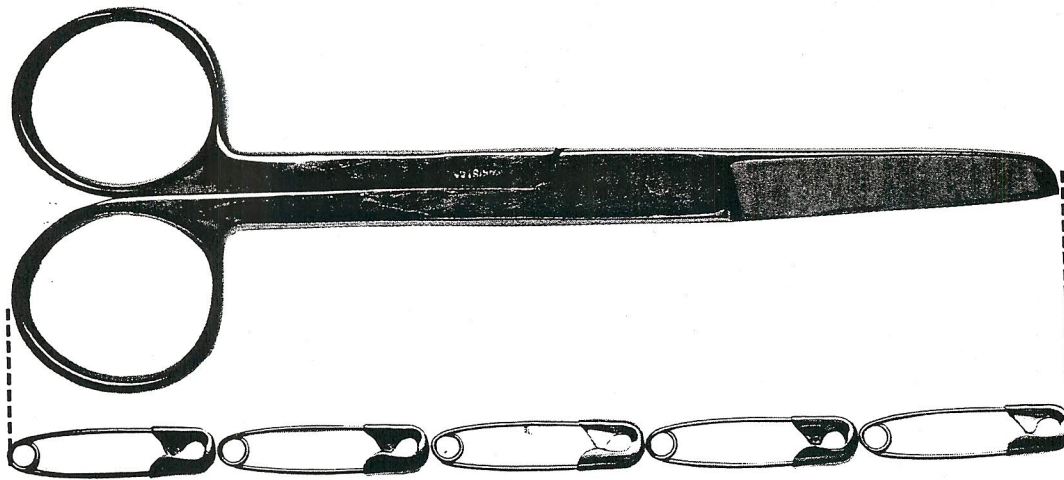
How many? _____



How many? _____

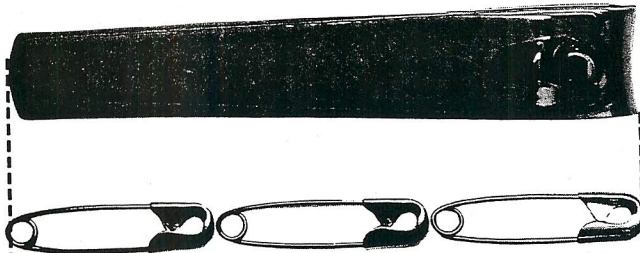
Name _____

1.12



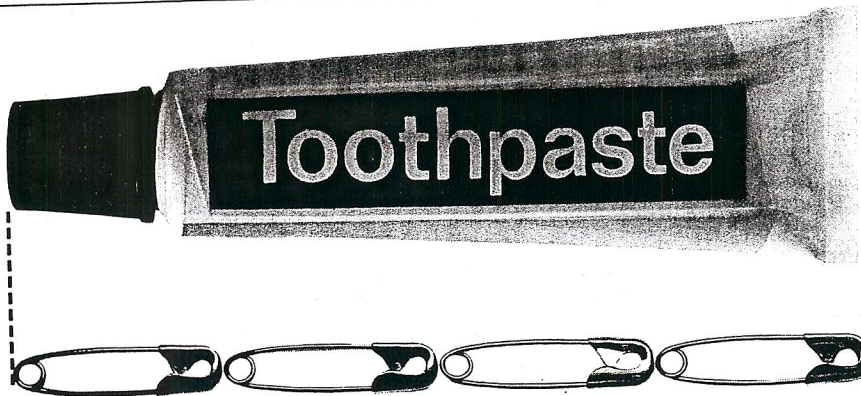
5 units long

Count the units. Write how many units long.



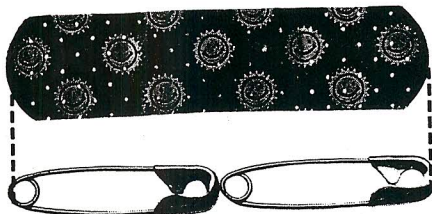
3 units

2.



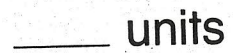
_____ units

3.



_____ units

1.12

[illegible]

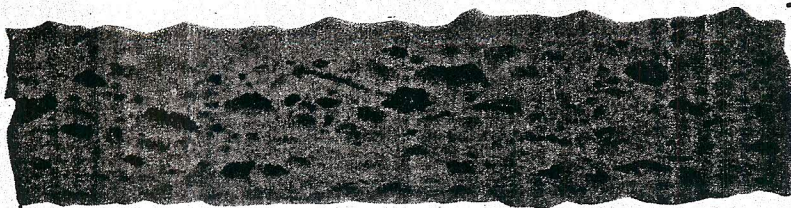
 units

[illegible]

 units

[illegible]

Write how long. Write how tall.



 units tall

[illegible]

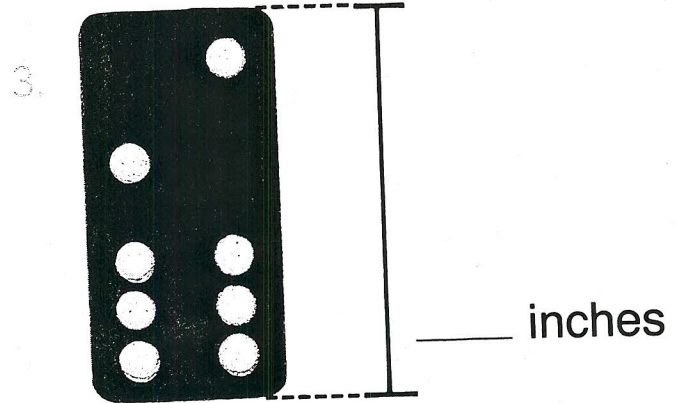
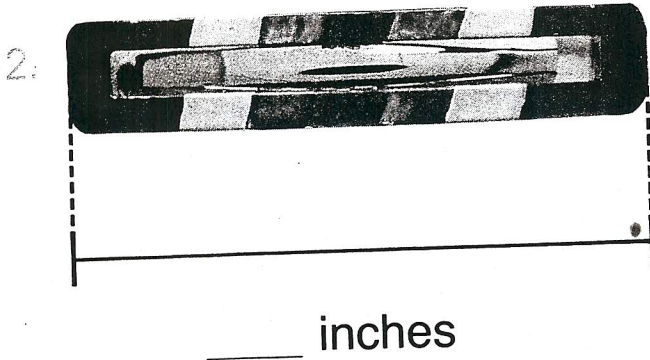
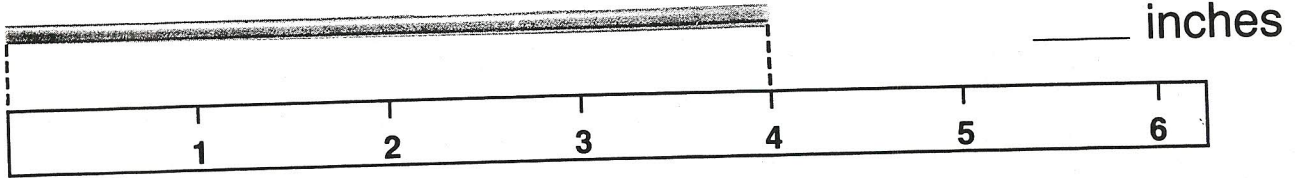
_____ units long

Name _____

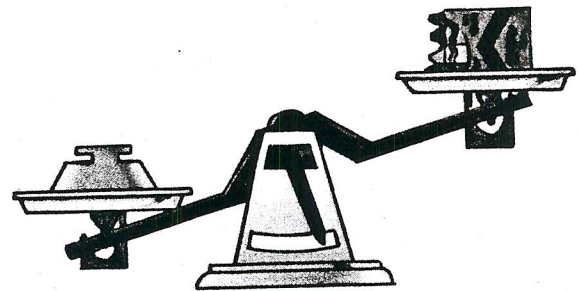
TEST: CUSTOMARY UNITS

112

Write how many inches.

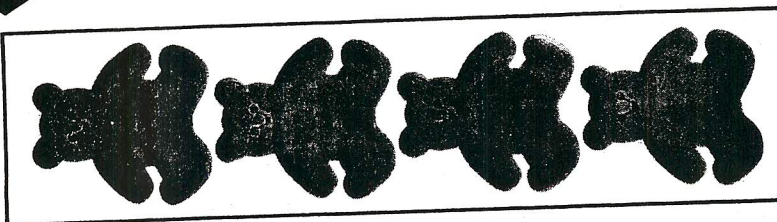


Write more or less than 1 pound.



Guess how many inches around. Measure.

6.



My Guess	My Measure

1.12

GUESS AND MEASURE

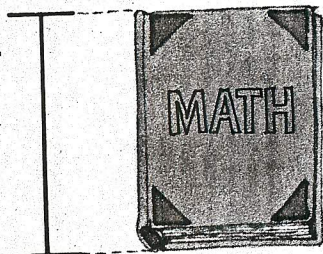
Measure your own objects.

Use the beads below.

My Guess

My Measure

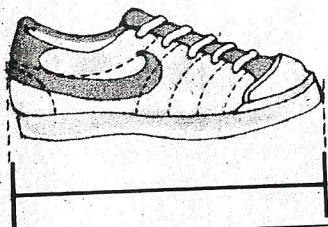
1.



_____ units

_____ units

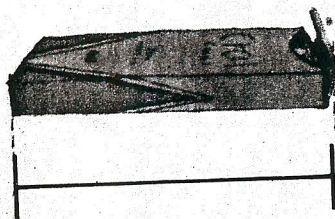
2.



_____ units

_____ units

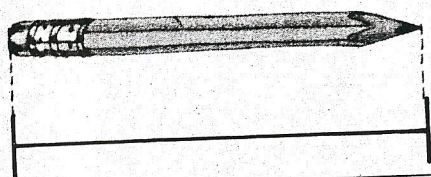
3.



_____ units

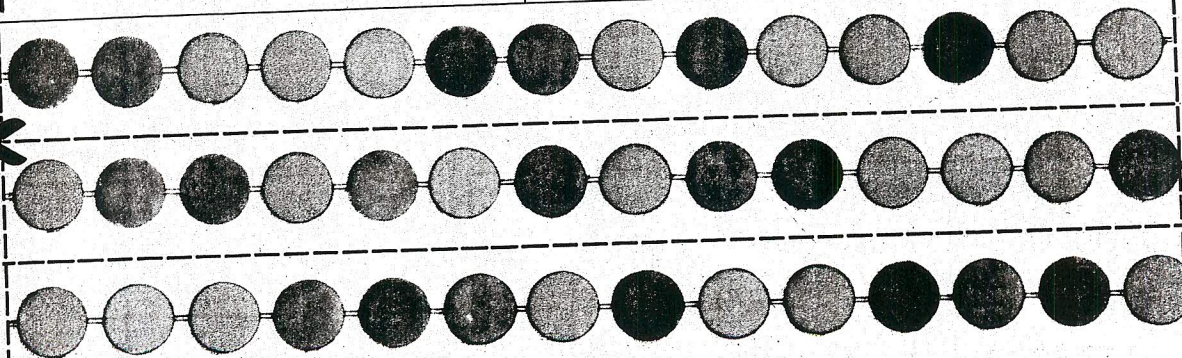
_____ units

4.



_____ units

_____ units



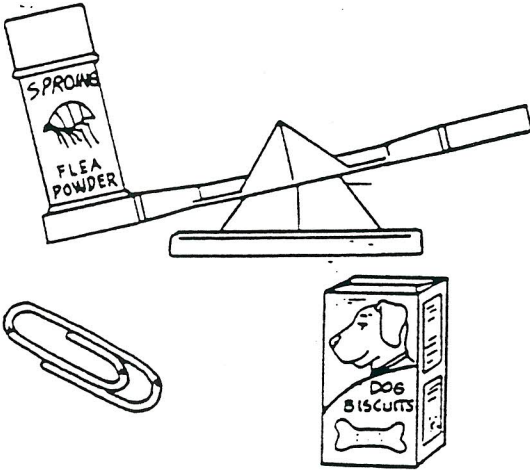
Name _____

Estimating and Measuring Weight

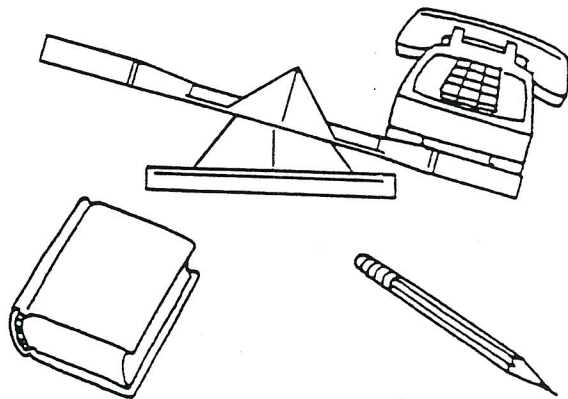
Reasoning

Ring the one that weighs about the same as the object on the scale.

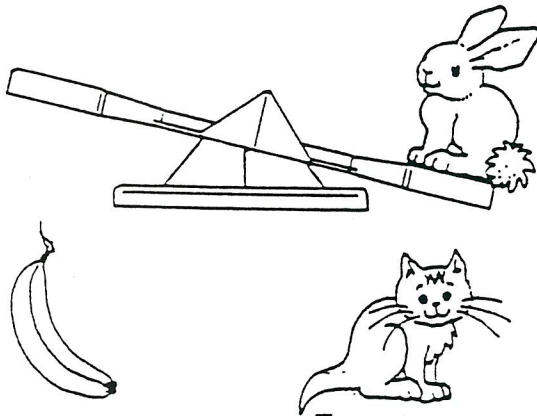
1.



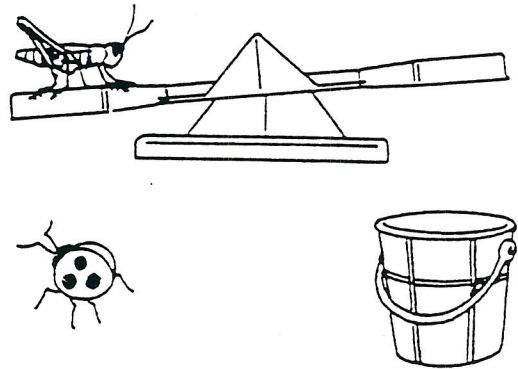
2.



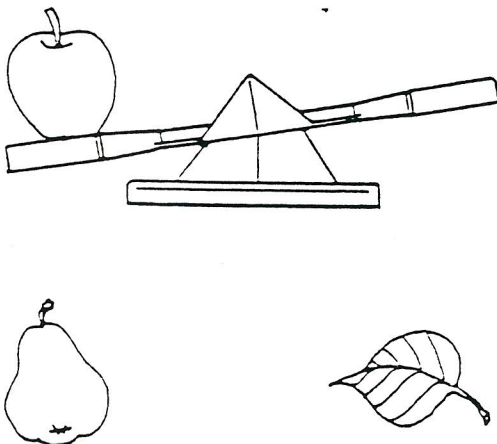
3.



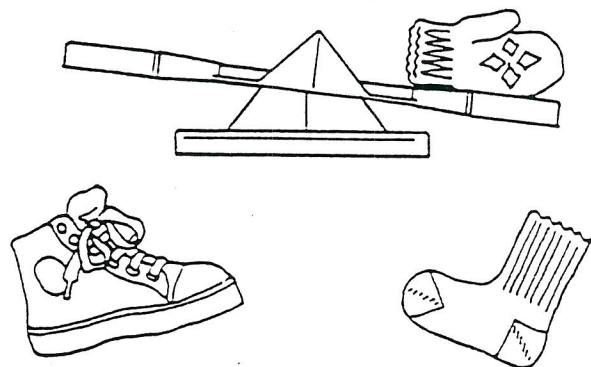
4.



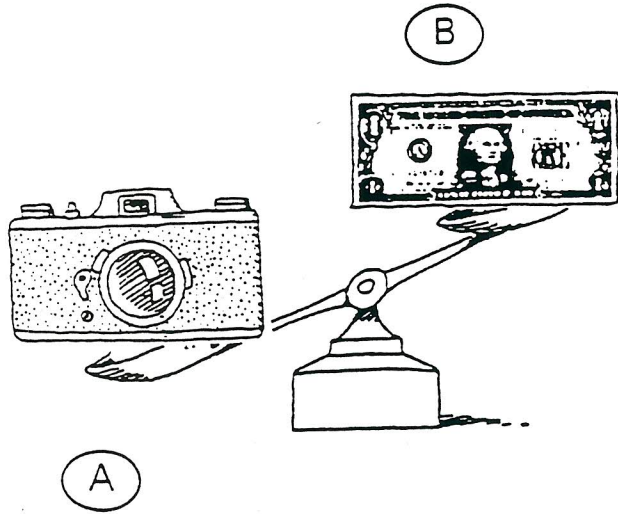
5.



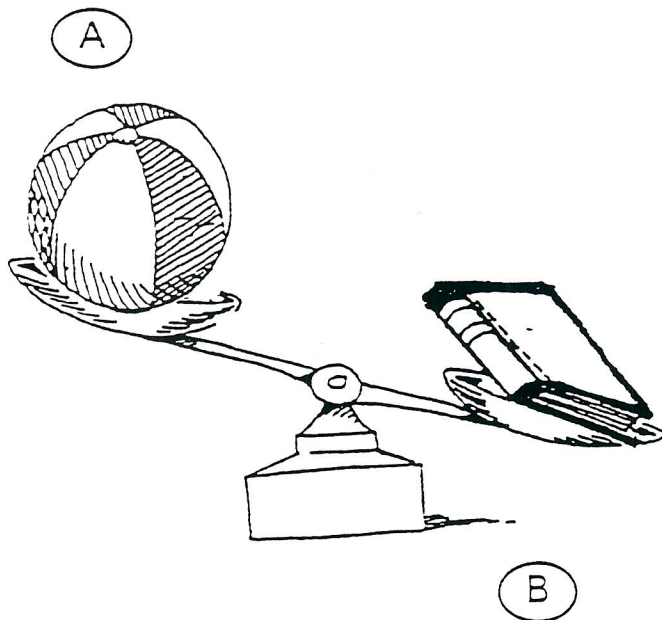
6.



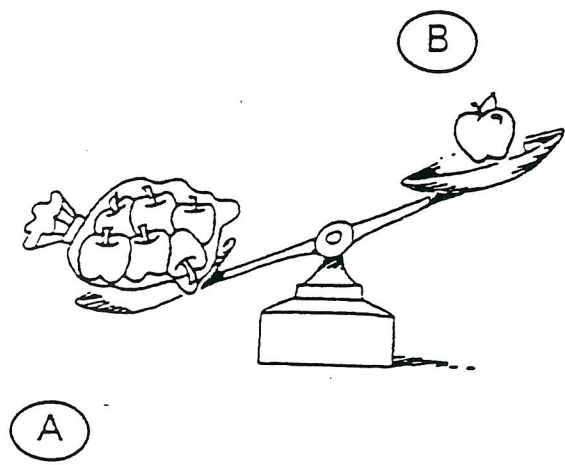
Which is less?



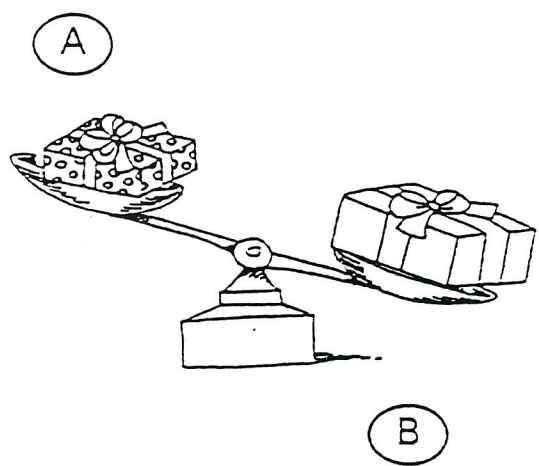
Which is less?



Which is more?



Which is more?



Which is more?.

