

# MEASURING MASS & VOLUME

3rd Grade



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NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

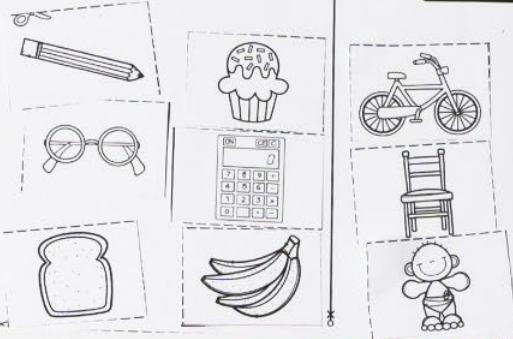
# MEASURING MASS

grams or kilograms

Directions: Cut out the shapes below. Decide whether you would measure each object's mass in grams or kilograms, and place in the correct column.

GRAMS

KILOGRAMS



# measuring MASS

mass is of matter

measured using different units

# measuring VOLUME

volume is the amount of space an object takes up

measured using different units, including:

MILLILITERS

measure small volumes of liquids such as:



# MEASURING VOLUME

reading volume

Directions: Use the measurements on the beakers to determine the volume of each liquid.



Volume:



Volume:



Volume:

AA = 25 grams

box of tissues = 100 grams

# MEASURING VOLUME

estimating volume

Item has two possible volumes listed. Circle the correct one.

1 MILLILITER

one teaspoon

1 LITER

medium carton

A collection of 10 numbered items for volume estimation, each with two options in ovals:

- 1. Soda can: 500 milliliters / 500 liters
- 2. Jar of jam: 75 milliliters / 75 liters
- 3. Toilet brush: 6 milliliters / 6 liters
- 4. Mug: 6 milliliters / 6 liters
- 5. Spoon: 5 milliliters / 5 liters
- 6. Jar of jam: 5 milliliters / 5 liters
- 7. Jar of jam: 4 milliliters / 4 liters
- 8. Jar of jam: 4 milliliters / 4 liters
- 9. Glass of water: 250 milliliters / 250 liters
- 10. Barrel: 1000 milliliters / 1000 liters

# measuring VOLUME

What is volume?

volume is space an obj

Volume can be measured using different units

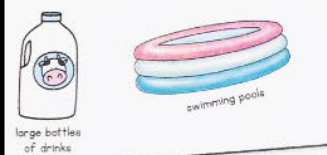
## MILLILITERS

You might use MILLILITERS to measure small vol



## LITER

You might use LITERS to measure large volumes



1,000 milliliters

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# MEASURING VOLUME

estimating volume

Directions: Each item has two possible volumes listed. Circle the volume that is more accurate for each item.

**1 MILLILITER**  
one teaspoon

**1 LITER**  
medium-sized carton of milk

- |          |  |                |          |  |
|----------|--|----------------|----------|--|
| <b>1</b> |  | 75 milliliters | <b>2</b> |  |
|          |  | 75 liters      |          |  |
| <b>3</b> |  | 6 milliliters  | <b>4</b> |  |
|          |  | 6 liters       |          |  |
| <b>5</b> |  | 5 milliliters  | <b>6</b> |  |
|          |  | 5 liters       |          |  |
| <b>7</b> |  | 4 milliliters  | <b>8</b> |  |
|          |  | 4 liters       |          |  |

NAM

Direct object.

**1**

**3**

**5**

**7**

**9**

**4**

**6**

**8**

**10**

**3** milliliters  
liters

**4** milliliters  
liters

**5** milliliters  
liters

**6**

**7** milliliters  
liters

**8**

**9** milliliters  
liters

**10**

NAME: \_\_\_\_\_

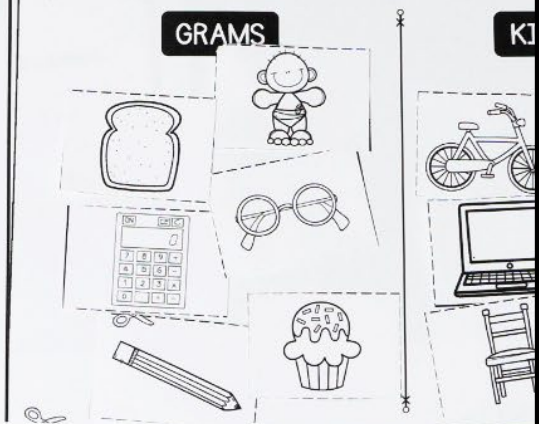
# MEASURING MASS

grams or kilograms

Directions: Cut out the shapes below. Decide whether you would use grams or kilograms, and place in the correct column.

**GRAMS**

**KILOGRAMS**



# measuring MASS

What is mass?

mass is amount of matter

Mass can be measured using different units.

## GRAMS

- = 1 gram
- = 5 grams
- = 25 grams
- = 100 grams
- = 400 grams
- = 600 grams

## KILLOGRAMS



1,000 grams = 1 kilogram

MEASURING VOLUME

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

Directions: Decide which object. Circle your answer.

1

What is volume?

Volume is the amount of space an object takes up.

### MEASURING MASS

mass puzzles

Directions: Assemble the puzzles by dragging the pieces. Each puzzle will have two pieces: one item and its corresponding mass.

			30 kilograms	75 grams
			5,000 kilograms	200 kilograms
		1 kilogram	1 gram	500 grams
		8 kilograms	5 grams	20 grams

### MEASURING MASS

grams or kilograms

DATE: \_\_\_\_\_

Directions: Write the mass of each object in the correct column.

**KILOGRAMS**

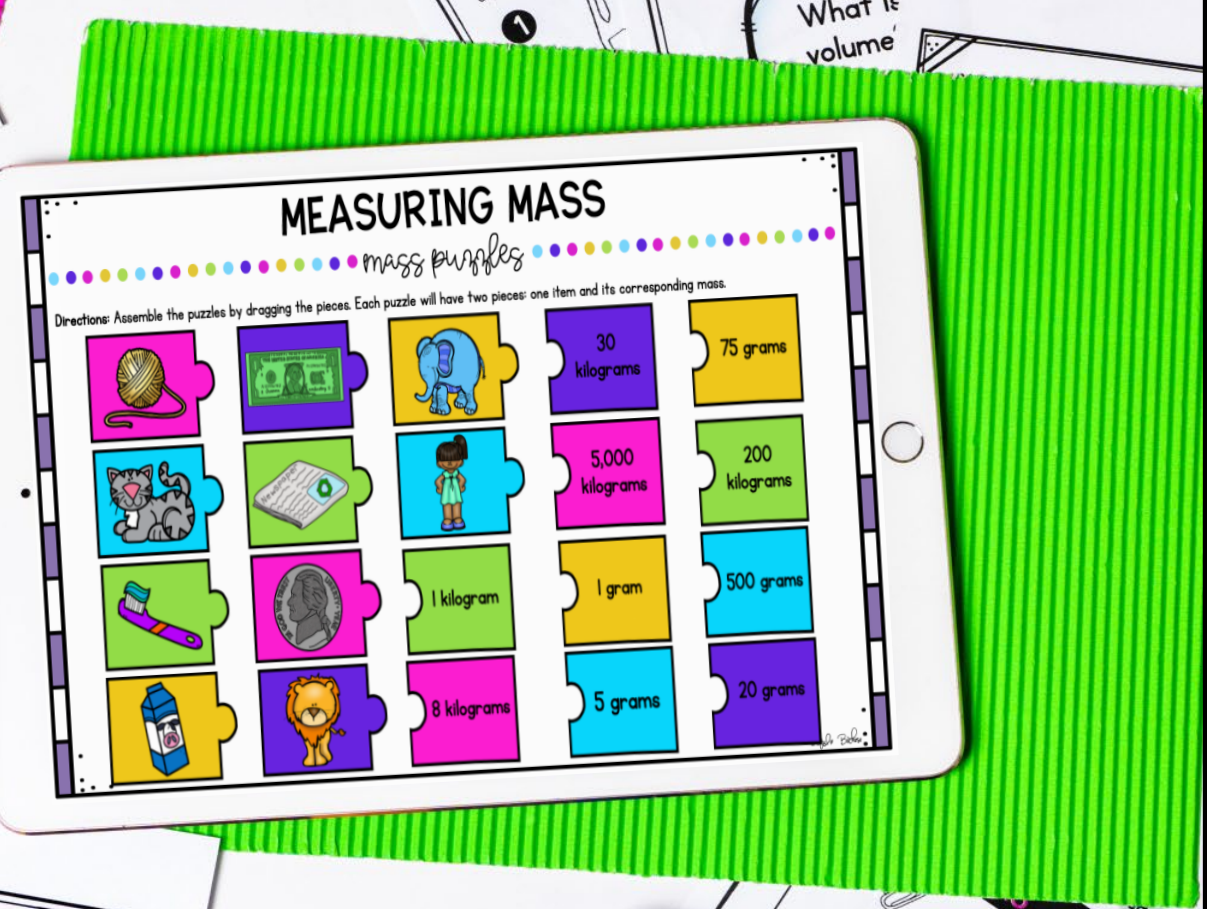
Directions: Write the mass of each object in the correct column.

**GRAMS**

**KILOGRAMS**

- 
- 
- 
- 
- 

1,000 grams = 1 kilogram



# measuring VOLUME

What is volume?

**volume** is the amount of space an object takes up

Volume can be measured using different units, including:

## MILLILITERS

You might use MILLILITERS to measure small volumes of liquids such as:



## LITERS

You might use LITERS to measure large volumes of liquids such as:



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

# MEASURING MASS

grams or kilograms

Directions: Cut out the shapes below. Decide whether you would measure each object's mass in grams or kilograms, and place in the correct column.

## GRAMS

## KILOGRAMS



# MEASURING MASS

grams or kilograms

Directions: Decide which unit of measurement you would use to measure the mass of each object. Drag your answer into the rectangle.

1




grams  
kilograms

2




grams  
kilograms

3




grams  
kilograms

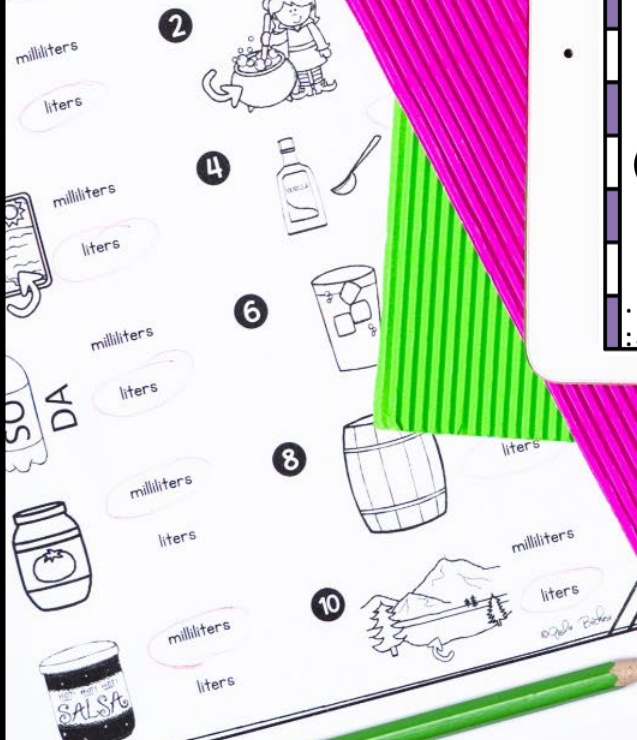
4




grams  
kilograms

# MEASURING VOLUME

milliliters or liters



= 400 grams  
 = 600 grams  
 1,000 grams = 1 kilogram

# MEASURING VOLUME

DATE: \_\_\_\_\_


milliliters or liter

Decide which unit of measurement you would use to measure your answer.

- 2 
  - milliliters
  - liters
  - milliliters



## measuring VOLUME

7 





What is volume?

Volume can be measured in MILLILITERS

You might use MILLILITERS to measure

-  liquid medicine
-  liquids for baking

You might use LITERS to measure

-  large bottles of drinks
-  swimming pools
-  bathtubs
-  buckets of paint

1,000 milliliters = 1 liter

# MEASURING VOLUME

DATE: \_\_\_\_\_

estimating volume

Directions: Estimate the volume of each item and write the unit you think is most accurate for each item.

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 

# MEASURING MASS

DATE: \_\_\_\_\_

grams or kilograms

Directions: Cut out the shapes and estimate their mass in grams or kilograms.







GRAM

What is mass?

mass is the amount of matter in an object

Mass can be measured using different units, including grams and kilograms.

### GRAMS

-  = 1 gram
-  = 5 grams
-  = 25 grams
-  = 100 grams
-  = 400 grams
-  = 600 grams

### KILOGRAMS

-  = 1 kilogram
-  = 1 kilogram
- 
- 
- 
- 

1,000 grams = 1 kilogram



the amount in an object

measuring VOLUME

volume is the amount of space an object takes up

measured using different units, including:

**MILLILITERS**  
measure small volumes of liquids such as:

- personal drinking bottles
- drinking glasses
- liquids for science experiments

**LITERS**  
measure large volumes of liquids such as:

- bath tubs
- buckets of paint

1000 milliliters = 1 liter

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# MEASURING MASS

grams or kilograms

Directions: Cut out the shapes below. Decide whether you would measure each object's mass in grams or kilograms, and place in the correct column.

GRAMS	KILOGRAMS

## MEASURING MASS

story problems

Directions: Solve the following story problem involving mass. Use the textbox to show your work.

4 Mr. and Mrs. Scheller are going on a trip. Mr. Scheller's suitcase weighs 22 kilograms, and Mrs. Scheller's suitcase weighs 19 kilograms. How much do their suitcases weigh altogether?

Answer:

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## MEASURING VOLUME

milliliters or liters

Directions: Decide which unit of measurement you would use to measure the volume of each object. Circle your answer.

- milliliters
  - liters
- milliliters
  - liters
- milliliters
  - liters
- 5 milliliters
  - 5 liters
- 4 milliliters
  - 4 liters
- 350 milliliters
  - 35 liters
- 1,000 milliliters
  - 1,000 liters
- 400 milliliters
  - 4 liters

# MEASURING MASS & VOLUME

3<sup>rd</sup> grade

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measuring

# MASS

What is mass?

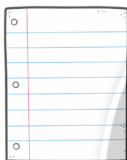
mass is the amount of matter in an object

Mass can be measured using different units, including:

## GRAMS



= 1 gram



= 5 grams



= 25 grams



= 100 grams



= 400 grams



= 600 grams

## KILOGRAMS



= 1 kilogram



= 5 kilograms



= 10 kilograms



= 50 kilograms



= 100 kilograms



= 500 kilograms

1,000 grams = 1 kilogram

# measuring VOLUME

What is  
volume?

**volume** is the amount of  
space an object takes up

Volume can be measured using different units, including:

## MILLILITERS

You might use MILLILITERS to measure small volumes of liquids such as:



liquid medicine



liquids for baking



personal drinking  
bottles



drinking glasses



liquids for  
science experiments

## LITERS

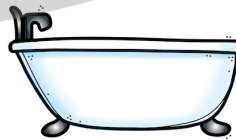
You might use LITERS to measure large volumes of liquids such as:



large bottles  
of drinks



swimming pools



bathtubs



buckets of paint

1,000 milliliters = 1 liter

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_





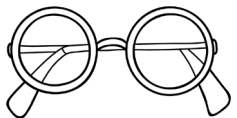



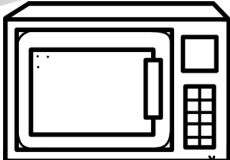
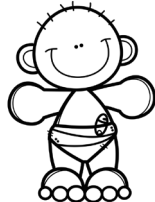
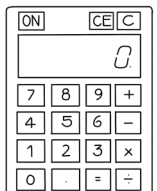
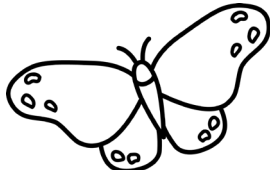



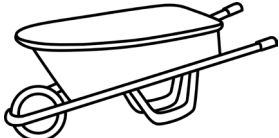
# MEASURING MASS

*grams or kilograms*

**Directions:** Cut out the shapes below. Decide whether you would measure each object's mass in grams or kilograms, and place in the correct column.

**GRAMS**

**KILOGRAMS**

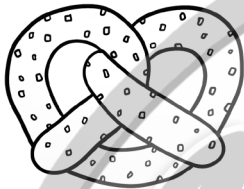
NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# MEASURING MASS

*grams or kilograms*

**Directions:** Decide which unit of measurement you would use to measure the mass of each object. Circle your answer.

1



grams

kilograms

2



grams

kilograms

3



grams

kilograms

4



grams

kilograms

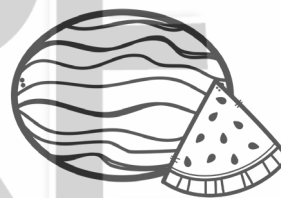
5



grams

kilograms

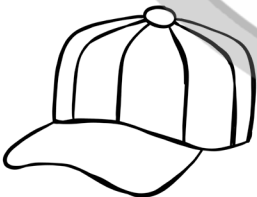
6



grams

kilograms

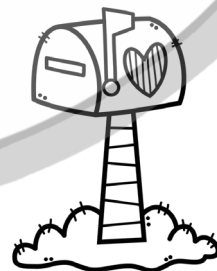
7



grams

kilograms

8



grams

kilograms

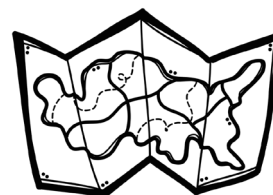
9



grams

kilograms

10



grams

kilograms

NAME: \_\_\_\_\_


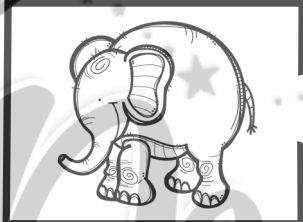


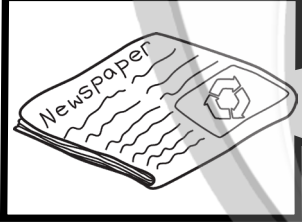
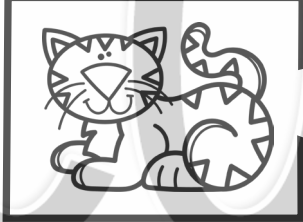
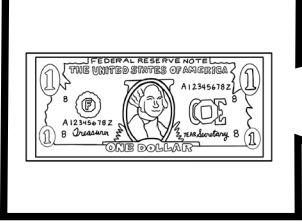
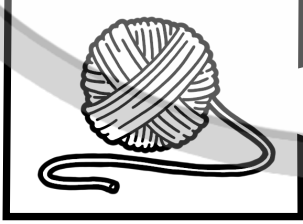
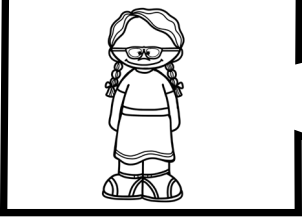
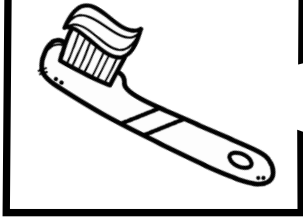
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# MEASURING MASS

## mass puzzles

**Directions:** Cut out the puzzle pieces. Assemble the puzzles by fitting together two pieces: one item and its corresponding mass.

✂

		500 grams	30 kilograms
		8 kilograms	1 kilogram
		1 gram	5 grams
		20 grams	200 kilograms
		5,000 kilograms	75 grams

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

# MEASURING MASS

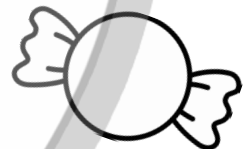
## story problems

**Directions:** Solve the following story problems involving mass. Show your work.

- 1** Christopher's math book weighs 950 grams. His language arts book weighs 810 grams. How much more does his math book weigh than his language arts book?



- 2** In a bag of candy, each piece of candy weighs 12 grams. If there are 9 pieces of candy in the bag, how much does the candy weigh altogether?



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_



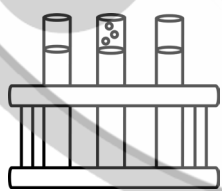
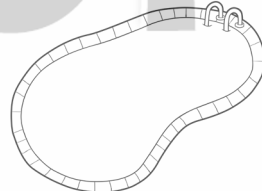

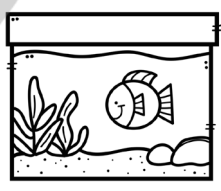

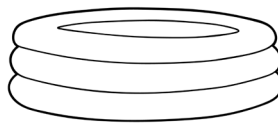
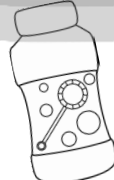
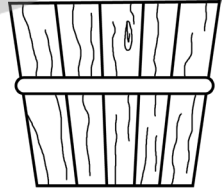

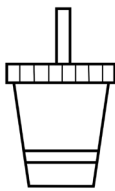
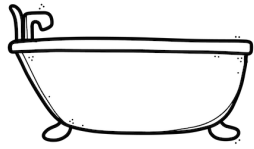


# MEASURING VOLUME

*milliliters or liters*

**Directions:** Cut out the shapes below. Decide whether you would measure each object's volume in milliliters or liters, and place in the correct column.

**MILLILITERS**

**LITERS**

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# MEASURING VOLUME

*estimating volume*

**Directions:** Each item has two possible volumes listed. Circle the volume that you think is more accurate for each item.

1 MILLILITER



one teaspoon

1 LITER



medium-sized carton of milk

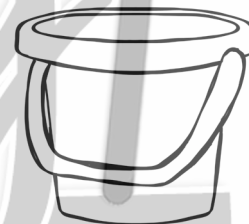
1



75 milliliters

75 liters

2



3 milliliters

3 liters

3



6 milliliters

6 liters

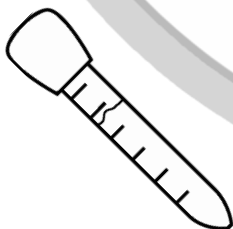
4



350 milliliters

35 liters

5



5 milliliters

5 liters

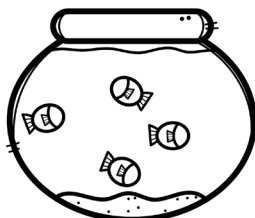
6



1,000 milliliters

1,000 liters

7



4 milliliters

4 liters

8



400 milliliters

4 liters

NAME: \_\_\_\_\_

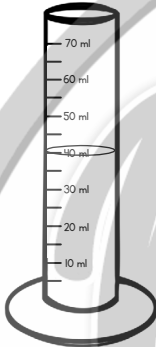
DATE: \_\_\_\_\_

# MEASURING VOLUME

## *graduated cylinders*

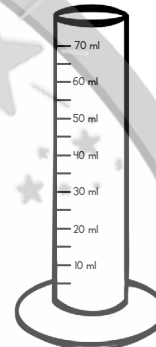
**Directions:** Arthur has graduated cylinders with different liquids, and he pours a certain amount out of each cylinder. Calculate how much liquid is left in each graduated cylinder. Write your answer and draw the volume on the new graduated cylinder.

**1**



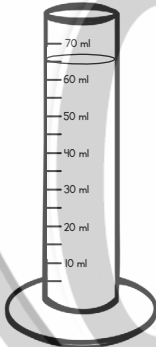
Volume

Arthur pours 16 mL out of the graduated cylinder. How much liquid is left?



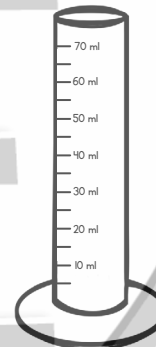
New volume

**2**



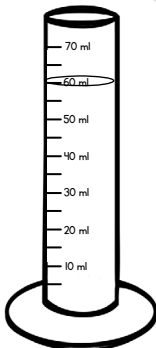
Volume

Arthur pours 33 mL out of the graduated cylinder. How much liquid is left?



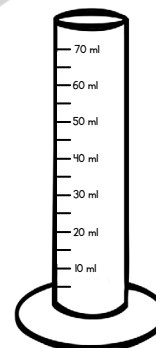
New volume

**3**



Volume

Arthur pours 48 mL out of the graduated cylinder. How much liquid is left?



New volume

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

# MEASURING VOLUME

## story problems

**Directions:** Solve the following story problems involving volume. Show your work.

- 1** Hayang is baking cupcakes. She adds 230 milliliters of milk to the mixing bowl and then 75 milliliters of oil. How much more milk than oil did Hayang add?



- 2** Every week, Cristian's family drinks 6 liters of milk. How many liters of milk does his family drink in 4 weeks?



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

# MEASURING MASS & VOLUME

## test review

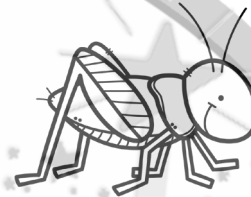
**Directions:** Decide which unit of measurement you would use to measure the mass of each object. Circle your answer.

1



grams  
kilograms

2



grams  
kilograms

3



grams  
kilograms

4



grams  
kilograms

**Directions:** Decide which unit of measurement you would use to measure the volume of each object. Circle your answer.

5



milliliters  
liters

6



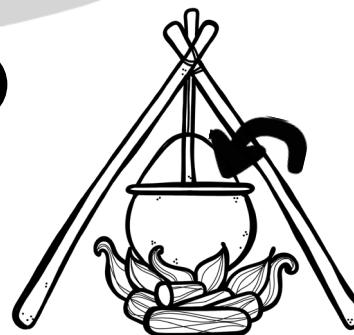
milliliters  
liters

7



milliliters  
liters

8



milliliters  
liters

NAME: \_\_\_\_\_

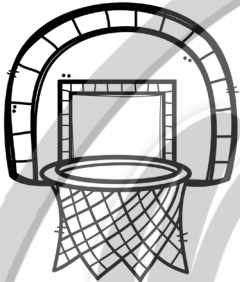
DATE: \_\_\_\_\_

# MEASURING MASS & VOLUME

## test

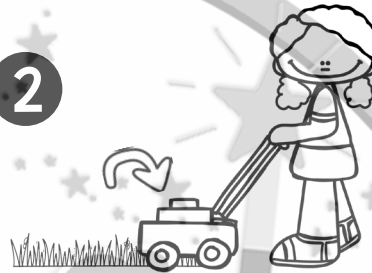
**Directions:** Decide which unit of measurement you would use to measure the mass of each object. Circle your answer.

1



grams  
kilograms

2



grams  
kilograms

3



grams  
kilograms

4



grams  
kilograms

**Directions:** Decide which unit of measurement you would use to measure the volume of each object. Circle your answer.

5



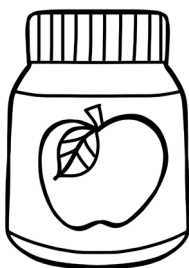
milliliters  
liters

6



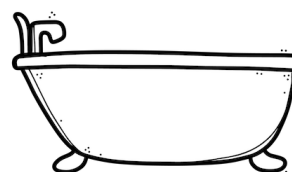
milliliters  
liters

7



milliliters  
liters

8



milliliters  
liters

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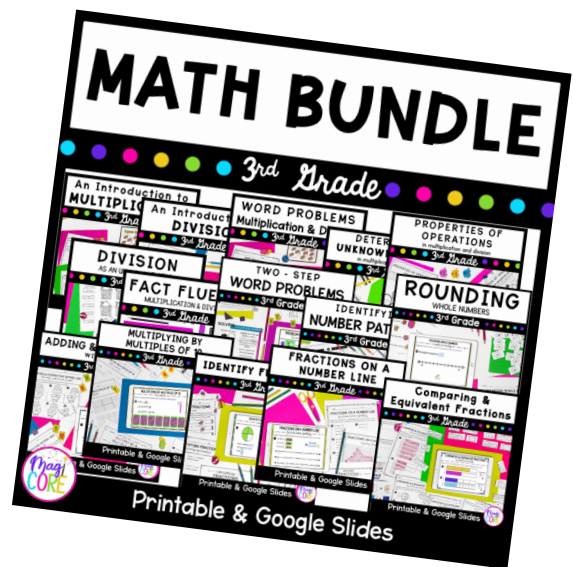
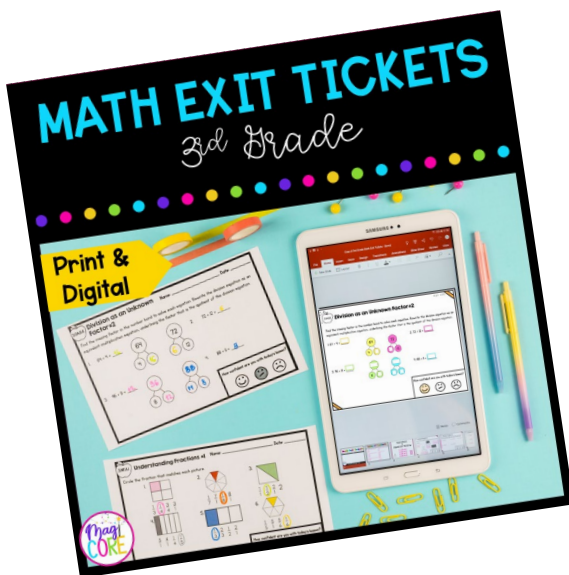
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