

3rd Grade
Week 7: May 11-15
Math

Parent Directions for 3rd Grade Math
Instrucciones Para Padres Para Matemáticas De 3er Grado
May 11-15

Monday/Lunes

Chapter 10 Lesson 9: Liquid volume and mass

In this lesson, your student will use models to solve liquid volume and mass problems.

Have your student **watch the following videos:**

Understanding volume (liters) | Math | 3rd grade | Khan Academy <https://www.khanacademy.org/math/cc-third-grade-math/imp-measurement-and-data/imp-volume/v/liter-intuition>

Understanding mass (grams and kilograms) | Math | 3rd grade | Khan Academy <https://www.khanacademy.org/math/cc-third-grade-math/imp-measurement-and-data/imp-mass/v/intuition-for-grams>

Have your student **read and do pages 611 and 612 (Skip the activity that is crossed out)**. Ask your student the guiding questions:

- How did you know how many liters were in each pitcher? *Possible answer: I counted the lines on the pitcher.*
- How did you know if Sadie would have tea left over? *Possible answer: I saw that the tea in the pitcher was bigger than 24 liters.*
- How did you know how many times it would take Raul to empty the fish tank? *Possible answer: I added 4+4+4... until I got to 32.*
- How did you find the total mass? *Possible answer: I added them together.*

For practice, have your student **do pages 613 and 614**. Ask your student the following questions:

- How do you find the total mass? *Possible answer: I add/subtract the different masses.*
- How do you find the total volume? *Possible answer: I add/subtract the different volumes.*

To reinforce this concept, student will **complete Lesson 10.9 Reteach page**.

**Lesson 10.9 - Ms. Baruch's students answer Re-Teach pg. 10-21*

**Page 612 – Ms. Baruch's students answer "Try This", and 1*

**Page 613 - Ms. Baruch's students answer 2,4*

**Page 614 - Ms. Baruch's students answer 8*

Capítulo 10 Lección 9: Volumen de líquido y masa

En esta lección, su estudiante utilizará modelos para resolver problemas de volumen de líquido y masa.

Haga que su alumno **vea los siguientes videos:**

Comprensión del volumen (litros) Matemáticas | 3er grado | Khan Academy

<https://www.khanacademy.org/math/cc-third-grade-math/imp-measurement-and-data/imp-volume/v/liter-intuition>

Comprensión de la masa (gramos y kilogramos) Matemáticas | 3er grado | Khan Academy

<https://www.khanacademy.org/math/cc-third-grade-math/imp-measurement-and-data/imp-mass/v/intuition-for-grams>

Pida a su alumno que **lea y haga las páginas 611 y 612** (Omita la actividad que está tachada). Haga a su alumno las preguntas que guían:

- ¿Cómo supo cuántos litros había en cada jarra? Posible respuesta: Conté las líneas en el lanzador.
- ¿Cómo supiste si Sadie le quedaría el té? Posible respuesta: Vi que el té en la jarra era más grande que 24 litros.

- ¿Cómo supiste cuántas veces le haría bien a Raúl vaciar la pecera? Posible respuesta: He añadido 4 4 4... hasta que llegué a 32.
- ¿Cómo encontraste la masa total? Posible respuesta: los añadí juntos.

Para la práctica, pida a su alumno que **haga las páginas 613 y 614**. Haga a su alumno las siguientes preguntas:

- ¿Cómo encuentra la masa total? Posible respuesta: Agregó/ruso las diferentes masas.
- ¿Cómo se encuentra el volumen total? Posible respuesta: Agregó/ruso los diferentes volúmenes.

Para reforzar este concepto, el alumno **completará la página de Enseñanza de la Lección 10.9**.

Tuesday/Martes

Today your child will complete the Chapter 10 Review/Test

Have your student **do pages 617-622**.

**Page 617 - Ms. Baruch's students answer 2a – 2d,*

**Page 618 - Ms. Baruch's students answer 4,5*

**Page 619 - Ms. Baruch's students answer 7 Part A, 9*

**Page 620 - Ms. Baruch's students answer 10,11*

**Page 621 - Ms. Baruch's students answer 16*

Hoy su hijo completará el Capítulo 10 Revisión/Prueba

Haga que su estudiante **haga las páginas 617-622**.

Wednesday/Miercoles

Chapter 12 introduction, Two Dimensional Shapes

Have your student **complete pages 695 and 696**.

**Page 695 - Ms. Baruch's students answer 1-5*

Introducción al capítulo 12, Dos formas dimensionales

Haga que su alumno **complete las páginas 695 y 696**.

Thursday/Jueves

Today, your student will complete any unfinished problems and practice math facts.

Hoy, su estudiante completará cualquier problema inacabado y practicará factos matemáticos.

Friday/Viernes

Your student will take the ATI assessment.

** Slides - Ms. Baruch's students answer 1-7*

Su estudiante tomará la evaluación ATI

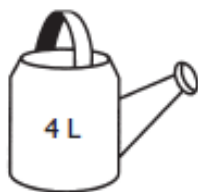
Name _____

Solve Problems About Liquid Volume and Mass

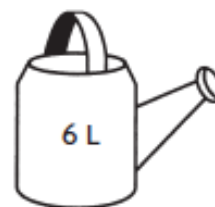
You can use a model or write an equation to solve problems about liquid volume and mass.

Tina's watering can holds 4 liters of water. Todd's watering can holds 6 liters of water. What is the total liquid volume of both watering cans?

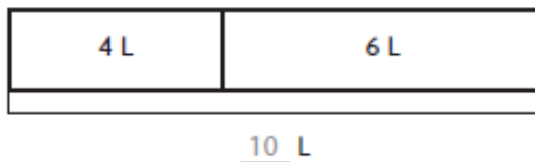
Tina's Watering Can



Todd's Watering Can



Use a bar model.



Think: Add to find the total.

$$4 \text{ L} + 6 \text{ L} = 10 \text{ L}$$

So, the total liquid volume is 10 L.

Write an equation.

Think: I can write an addition equation to find the sum of the liquid volumes.

$$\underline{4} + \underline{6} = \underline{10}$$

So, the total liquid volume is 10 L.

Write an equation and solve the problem.

1. Kyra has a small bucket that holds 3 liters of water and a large bucket that holds 5 liters of water. Altogether, how many liters of water do the two buckets hold?
2. Rick's recipe calls for 25 grams of raisins and 40 grams of nuts. How many more grams of nuts than raisins does the recipe call for?

_____ ○ _____ = _____

_____ ○ _____ = _____

Name _____

Solve Problems About Liquid Volume and Mass

Essential Question How can you use models to solve liquid volume and mass problems?



Measurement and Data—3.MD.A.2
Also 3.OA.C.7, 3.NBT.A.2

MATHEMATICAL PRACTICES
MP1, MP2, MP4

Unlock the Problem Real World

A restaurant serves iced tea from a large container that can hold 24 liters. Sadie will fill the container with the pitchers of tea shown below. Will Sadie have tea left over after filling the container?



Example 1 Solve a problem about liquid volume.



Since there are ____ equal groups of ____ liters, you can multiply.

____ \times ____ = ____

Circle the correct words to complete the sentences.

____ liters is *greater than* / *less than* 24 liters.

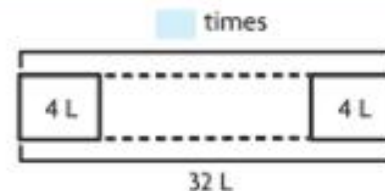
So, Sadie *will* / *will not* have tea left over.

Try This! Use a bar model to solve.

Raul's fish tank contains 32 liters of water. He empties it with a bucket that holds 4 liters of water. How many times will Raul have to fill the bucket?

____ \div ____ = ____

So, Raul will have to fill the bucket ____ times.



Activity Solve a problem about mass.

Materials ■ pan balance ■ glue stick ■ gram masses

Jeff has a glue stick and a 20-gram mass on one side of a balance and gram masses on the other side. The pan balance is balanced. What is the mass of the glue stick?



STEP 1 Place a glue stick and a 20-gram mass on one side of the balance.

STEP 2 Place gram masses on the other side until the pans are balanced.

STEP 3 To find the mass of the glue stick, remove 20 grams from each side.

Think: I can remove 20 grams from both sides and the pan balance will still be balanced.

STEP 4 Then add the measures of the gram masses on the balance.

The gram masses have a measure of _____ grams.

So, the glue stick has a mass of _____.

Math Talk

MATHEMATICAL PRACTICES 4

Write an Equation
What equation can you write to find the mass of the glue stick?

Try This! Use a bar model to solve.

A bag of peas has a mass of 432 grams.
A bag of carrots has a mass of 263 grams.
What is the total mass of both bags?

_____ + _____ = _____

So, both bags have a total mass of _____ grams.



Share and Show



1. Ed's Delivery Service delivered three packages to Ms. Wilson. The packages have masses of 9 kilograms, 12 kilograms, and 5 kilograms. What is the total mass of the three packages? Use the bar model to help you solve.



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Name _____



Write an equation and solve the problem.

2. Ariel's recipe calls for 64 grams of apples and 86 grams of oranges. How many more grams of oranges than apples does the recipe call for?
- _____ = _____

3. Dan's Clams restaurant sold 45 liters of lemonade. If it sold the same amount each hour for 9 hours, how many liters of lemonade did Dan's Clams sell each hour?
- _____ = _____

Math Talk

MATHEMATICAL PRACTICES 4

Use Models How could you use a model to solve Exercise 2?

On Your Own

MATHEMATICAL PRACTICES 4 **Write an Equation** Write an equation and solve the problem.

4. Sasha's box holds 4 kilograms of napkins and 29 kilograms of napkin rings. What is the total mass of the napkins and napkin rings?
- _____ = _____

5. Josh has 6 buckets for cleaning a restaurant. He fills each bucket with 4 liters of water. How many liters of water are in the buckets?
- _____ = _____

6. **THINK SMARTER** Ellen will pour water into Pitcher B until it has 1 more liter of water than Pitcher A. How many liters of water will she pour into Pitcher B? Explain how you found your answer.
- _____
- _____



7. **Practice: Copy and Solve** Use the pictures to write two problems. Then solve your problems.

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 **Unlock the Problem** 

8. Ken's Café serves fruit smoothies. Each smoothie has 9 grams of fresh strawberries. How many grams of strawberries are in 8 smoothies?

- a. What do you need to find? _____
- b. What operation will you use to find the answer? _____
- c. **MATHEMATICAL PRACTICE 4 Use Diagrams** Draw a diagram to solve the problem.

d. Complete the sentences.

There are _____ smoothies with _____ grams of strawberries in each.

Since each smoothie is an _____ group, you can _____.

_____ ○ _____ = _____

So, there are _____ grams of strawberries in 8 smoothies.

9. **GO DEEPER** Arturo has two containers, each filled with 12 liters of water. Daniel has two containers, each filled with 16 liters of water. What is the total liquid volume of the boys' containers?

10. **THINK SMARTER** A deli makes its own salad dressing. A small jar has 3 grams of spices. A large jar has 5 grams of spices. Will 25 grams of spices be enough to make 3 small jars and 3 large jars? Show your work.

Name _____

**Chapter 10 Review/Test****Personal Math Trainer**Online Assessment
and Intervention

1. Yul and Sarah's art class started at 11:25 A.M. The class lasted 30 minutes. Yul left when the class was done. Sarah stayed an extra 5 minutes to talk with the teacher and then left.

Write the time that each student left. Explain how you found each time.



2. Julio measured an object that he found. It was about $\frac{3}{4}$ inch wide.

For numbers 2a-2d, choose Yes or No to tell whether the object could be the one Julio measured.

2a.

 Yes No

2b.

 Yes No

2c.

 Yes No

2d.

 Yes No

3. Dina started swimming at 3:38 P.M. She swam until 4:15 P.M.
How long did Dina swim?

_____ minutes

4. Rita's class begins social studies at ten minutes before one in the afternoon. At what time does Rita's class begin social studies? Circle a time that makes the sentence true.

Rita's class begins social studies at

1:10 A.M.

1:10 P.M.

12:50 A.M.

12:50 P.M.

5. Select the objects with a mass greater than 1 kilogram.
Mark all that apply.

A bicycle

C eraser

B pen



D math book

6. A chicken dish needs to bake in the oven for 35 minutes.
The dish needs to cool for at least 8 minutes before
serving. Scott puts the chicken dish in the oven at 5:14 P.M.

For numbers 6a–6d, select True or False for each statement.

- 6a. Scott can serve the dish at 5:51 P.M. True False
- 6b. Scott can serve the dish at 5:58 P.M. True False
- 6c. Scott should take the dish out of the oven at 5:51 A.M. True False
- 6d. Scott should take the dish out of the oven at 5:49 P.M. True False

Name _____


-   7. Anthony read a book to his little brother. He started reading at the time shown on the clock. He stopped reading at 5:45 P.M.

 **Part A**



How long did Anthony read to his little brother?

_____ minutes



 **Part B**


Explain how you found your answer.

-   8. Tran checked the time on his watch after he finished his daily run.

Select the time that Tran finished running. Mark all that apply.

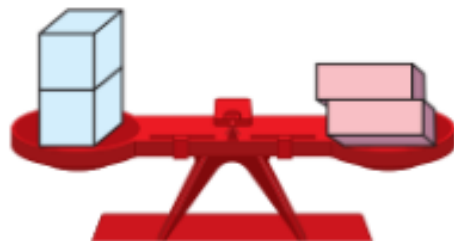
- A** 14 minutes before nine **C** quarter to nine
 B eight forty-six **D** nine forty-six



-  9. Cara uses a balance scale to compare mass.

Circle a symbol that makes the comparison true.

The mass of the blocks _____ the mass of the erasers.



10. A large bottle of water holds about 2 liters.

For numbers 10a–10e, choose Yes or No to tell whether the container will hold all of the water.

- | | | |
|---|---------------------------|--------------------------|
| <input type="radio"/> 10a. kitchen sink | <input type="radio"/> Yes | <input type="radio"/> No |
| <input type="radio"/> 10b. water glass | <input type="radio"/> Yes | <input type="radio"/> No |
| <input type="radio"/> 10c. ice cube tray | <input type="radio"/> Yes | <input type="radio"/> No |
| <input type="radio"/> 10d. large soup pot | <input type="radio"/> Yes | <input type="radio"/> No |
| <input type="radio"/> 10e. lunchbox thermos | <input type="radio"/> Yes | <input type="radio"/> No |

11. Select the items that would be best measured in grams. Mark all that apply.

- A watermelon
- B lettuce leaf
- C grape
- D onion

12. Samir made a list of what he did on Tuesday. Write the letter for each activity next to the time he did it.

- | | |
|--|-------------------------------------|
| <input type="checkbox"/> A Get out of bed. | <input type="checkbox"/> 8:05 A.M. |
| <input type="checkbox"/> B Walk to school. | <input type="checkbox"/> 6:25 P.M. |
| <input type="checkbox"/> C Eat lunch. | <input type="checkbox"/> 3:50 P.M. |
| <input type="checkbox"/> D Go to guitar lesson after school. | <input type="checkbox"/> 11:48 A.M. |
| <input type="checkbox"/> E Eat dinner at home. | <input type="checkbox"/> 6:25 A.M. |

Name _____

13. Amy has 30 grams of flour. She puts 4 grams of flour in each pot of chowder that she makes. She puts 5 grams of flour in each pot of potato soup that she makes. She makes 4 pots of chowder. Does Amy have enough flour left over to make 3 pots of potato soup?

14. **GO DEEPER** Use an inch ruler to measure.

Part A

What is the length of the leaf to the nearest fourth inch?

Part B

Explain what happens if you line up the left side of the object with the 1 on the ruler.

15. Mrs. Park takes the 9:38 A.M. train to the city. The trip takes 3 hours and 20 minutes. What time does Mrs. Park arrive in the city?

16. Hector buys two bags of gravel for his driveway. He buys a total of 35 kilograms of gravel. Select the bags he buys.

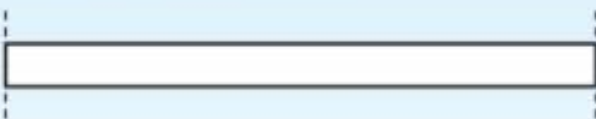
15 kg	17 kg	18 kg	19 kg
-------	-------	-------	-------



17. **THINK SMARTER+** Ashley measures the shells she collects. She records the measurements in a chart.

Part A

Ashley found a razor clam shell this long. Use an inch ruler to measure. Record the measurement in the chart.

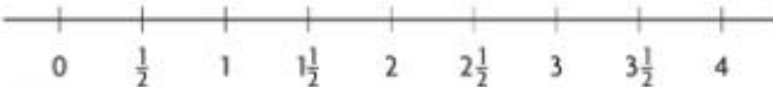


_____ inches

Number of Shells	Length in Inches
1	1
2	$2\frac{1}{2}$
3	$1\frac{1}{2}$
1	2

Part B

Complete the line plot to show the data in the chart. How many shells are longer than 2 inches? Tell how you know.



Length of Shells Measured to the Nearest Half Inch

18. Lucy fills a bathroom sink with water. Is the amount of water *more than 1 liter*, *about 1 liter*, or *less than 1 liter*? Explain how you know.

Chapter 12

Two-Dimensional Shapes

Show What You Know

Personal Math Trainer
1. Online Assessment and Intervention

Check your understanding of important skills.

Name _____

▶ Plane Shapes (2.G.A.1)

1. Color the triangles blue.



2. Color the rectangles red.

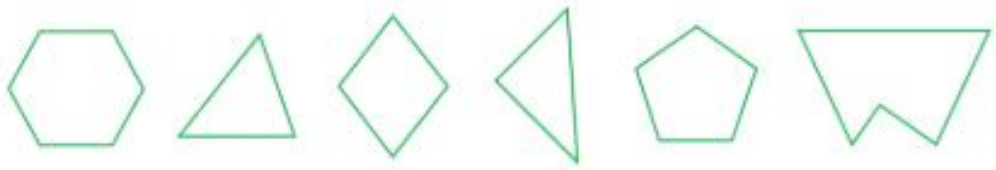


▶ Number of Sides Write the number of sides. (2.G.A.1)

3.  _____ sides

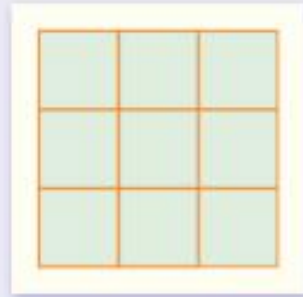
4.  _____ sides

5. Circle the shapes that have 4 or more sides.



Math in the Real World

Whitney found this drawing that shows 9 small squares. Find larger squares in the drawing. How many squares are there in all? Explain.



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Vocabulary Builder

Visualize It

Complete the tree map by using the words with a ✓.



Understand Vocabulary

Draw a line to match the word with its definition.

- | | |
|-----------------|--|
| 1. closed shape | • A part of a line that includes two endpoints and all the points between them |
| 2. line segment | • A shape formed by two rays that share an endpoint |
| 3. right angle | • A shape that starts and ends at the same point |
| 4. hexagon | • An angle that forms a square corner |
| 5. angle | • A closed plane shape made up of line segments |
| 6. polygon | • A polygon with 6 sides and 6 angles |

Preview Words

- angle
- closed shape
- hexagon
- intersecting lines
- line
- line segment
- open shape
- parallel lines
- perpendicular lines
- point
- polygon
- ✓ quadrilateral
- ray
- ✓ rectangle
- ✓ rhombus
- right angle
- ✓ square
- trapezoid
- ✓ triangle
- Venn diagram
- vertex

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Compare Estimates to Actual Measures

Slide 1

What You Will Learn

You will learn to compare estimations of measures to correct measures.

Slide 2

Key Words

Estimate/Estimation - a guess that is somewhat close to the correct measure

Length - the measure of how long something is from one end to the other

Weight - the measure of how heavy something is

Temperature - the measure of how warm or cold something is

U.S. customary units - the units used in the United States to measure things (e.g., inches, pounds, gallons)

Slide 4

Belinda estimated that her dog weighed 20 pounds. She weighed her dog, and it weighed 40 pounds.

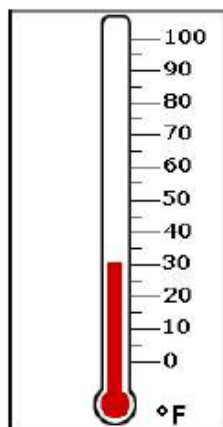
Her estimate was:

- A) too low by 20 pounds
- B) too low by 10 pounds
- C) exact
- D) too high by 20 pounds

Slide 5

Chrissy guessed the temperature was 40° F.

Was her guess correct?



- A) Her guess was 10° too low.
- B) Her guess was correct.
- C) Her guess was 10° too high.
- D) Her guess was 20° too high.

Slide 6

Jon guessed the baseball game would be over at 9:15. The clock shows when the baseball game was really over.

Was his guess correct?



- A) The game was over 10 minutes later than he guessed.
- B) The game was over 5 minutes later than he guessed.
- C) His guess was correct.
- D) The game was over 5 minutes earlier than he guessed.

Slide 7

What You Learned

You learned to compare estimations of measures to correct measures.

Compare Estimates to Actual Measures Test

- 1) The teacher guessed the school bus would get to school at 8:00. The clock shows when the school bus really got to school.

Was his guess correct?



- A) The school bus was 5 minutes earlier than he guessed.
- B) His guess was correct.
- c) The school bus was 5 minutes later than he guessed.
- D) The school bus was 10 minutes later than he guessed.