

Dear Family,

During the next few weeks, our math class will be learning about measurement. We will learn to measure time, length, liquid volume, and mass.

You can expect to see homework that provides practice with telling time, finding elapsed time, and solving problems with measurement.

Here is a sample of how your child will be taught to find elapsed time.

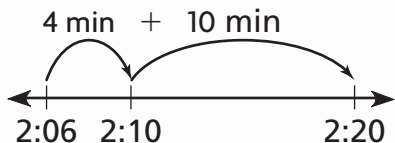


### MODEL Find Elapsed Time

This is one way we will be learning to find elapsed time.  
Start time: 2:06 P.M. End time: 2:20 P.M.

#### STEP 1

Find the starting time on a the number line. Count on to the ending time, 2:20.



So, the elapsed time is 14 minutes.

#### STEP 2

Add the minutes.

$$4 + 10 = 14$$

## Vocabulary

**A.M.** The times after midnight and before noon

**elapsed time** The amount of time that passes from the start of an activity to the end of the activity

**P.M.** The times after noon and before midnight

### Tips

#### Another Way to Find Elapsed Time

Another way to find the elapsed time is to use an analog clock.



## Activity

Have your child practice telling time and finding elapsed time.

Ask questions such as, "Soccer practice starts at 3:30 P.M.

It ends at 4:20 P.M. How many minutes does it last?"

# Carta para la casa

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos sobre mediciones. Aprenderemos a medir el tiempo, la longitud, el volumen de los líquidos y la masa.

Llevaré a la casa tareas con actividades que incluyen decir la hora, hallar el tiempo transcurrido, y resolver problemas con mediciones.

Este es un ejemplo de la manera como aprenderemos a hallar el tiempo transcurrido.

## Vocabulario

**A.M.** El tiempo después de la media noche y antes del medio día

**tiempo transcurrido** El periodo de tiempo que transcurre desde el inicio hasta el final de una actividad

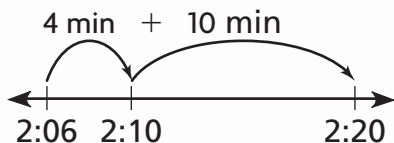
**P.M.** El tiempo después del medio día y antes de la media noche

### **MODELO** Hallar el tiempo transcurrido

Esta es una manera de hallar el tiempo transcurrido.  
Hora de inicio: 2:06 P.M. Final: 2:20 P.M.

#### PASO 1

Halla en una recta numérica la hora de inicio. Cuenta hacia adelante hasta llegar a la hora final, 2:20.



#### PASO 2

Suma los minutos.

$$4 + 10 = 14$$

Por tanto, el tiempo transcurrido es 14 minutos.

### **Pistas**

Otra manera de hallar el tiempo transcurrido

Otra manera de hallar el tiempo transcurrido es usar un reloj analógico.



## Actividad

Pida a su hijo o hija que practique cómo decir la hora y hallar el tiempo transcurrido. Usen las actividades familiares o las actividades programadas para practicar el tiempo transcurrido. Por ejemplo, “El entrenamiento de fútbol empieza a las 3:30 P.M. y termina a las 4:20 P.M. ¿Cuántos minutos dura?”

Name \_\_\_\_\_

## Time to the Minute



**COMMON CORE STANDARD—3.MD.1**  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

Write the time. Write one way you can read the time.

1.



**1:16; sixteen minutes after one**

\_\_\_\_\_

2.



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3.



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4.



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5.



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6.



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\_\_\_\_\_

Write the time another way.

7. 23 minutes after 4

\_\_\_\_\_

8. 18 minutes before 11

\_\_\_\_\_

9. 10 minutes before 9

\_\_\_\_\_

10. 7 minutes after 1

\_\_\_\_\_

### Problem Solving



11. What time is it when the hour hand is a little past the 3 and the minute hand is pointing to the 3?

\_\_\_\_\_

12. Pete began practicing at twenty-five minutes before eight. What is another way to write this time?

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## Lesson Check (3.MD.1)

1. What is another way to write 13 minutes before 10?

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2. What time does the clock show?



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## Spiral Review (3.OA.1, 3.OA.2, 3.OA.4, 3.OA.6)

3. Each bird has 2 wings. How many wings do 5 birds have?

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4. Find the unknown factor.

$$8 \times \blacksquare = 56$$

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5. Mr. Wren has 56 paintbrushes. He places 8 paintbrushes on each of the tables in the art room. How many tables are in the art room?

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6. What number completes the equations?

$$4 \times \blacktriangle = 20 \quad 20 \div 4 = \blacktriangle$$

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Name \_\_\_\_\_

## A.M. and P.M.



**COMMON CORE STANDARD—3.MD.1**  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

Write the time for the activity. Use A.M. or P.M.

1. eat lunch



**12:20 P.M.**

\_\_\_\_\_

2. go home after school



\_\_\_\_\_

3. see the sunrise



\_\_\_\_\_

4. go for a walk



\_\_\_\_\_

5. go to school



\_\_\_\_\_

6. get ready for art class



\_\_\_\_\_

Write the time. Use A.M. or P.M.

7. 13 minutes after 5:00 in the morning

\_\_\_\_\_

8. 19 minutes before 9:00 at night

\_\_\_\_\_

9. quarter before midnight

\_\_\_\_\_

10. one-half hour after 4:00 in the morning

\_\_\_\_\_

### Problem Solving



11. Jaime is in math class. What time is it?  
Use A.M. or P.M.



\_\_\_\_\_

12. Pete began practicing his trumpet at fifteen minutes past three. Write this time using A.M. or P.M.

\_\_\_\_\_

## Lesson Check (3.MD.1)

1. Steven is doing his homework. What time is it? Use A.M. or P.M.
2. After he finished breakfast, Mr. Edwards left for work at fifteen minutes after seven. What time is this? Use A.M. or P.M.



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## Spiral Review (3.OA.6, 3.NBT.2, 3.NBT.3, 3.NF.3d)

3. What division equation is related to the multiplication equation  
 $4 \times 6 = 24$ ?
4. There are 50 toothpicks in each box. Jaime buys 4 boxes for her party platter. How many toothpicks does Jaime buy?

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5. A pet store sold 145 bags of beef-flavored dog food and 263 bags of cheese-flavored dog food. How many bags of dog food were sold?
6. Compare. Write  $<$ ,  $>$ , or  $=$ .

$$\frac{3}{6} \bigcirc \frac{4}{6}$$

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Name \_\_\_\_\_

## Measure Time Intervals



**COMMON CORE STANDARD—3.MD.1**  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

**Find the elapsed time.**

1. Start: 8:10 A.M. End: 8:45 A.M.



**35 minutes**

2. Start: 6:45 P.M. End: 6:54 P.M.



3. Start: 3:00 P.M. End: 3:37 P.M.



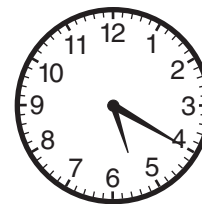
4. Start: 10:05 A.M. End: 10:21 A.M.



5. Start: 7:30 A.M. End: 7:53 A.M.



6. Start: 5:20 A.M. End: 5:47 A.M.



### Problem Solving



7. A show at the museum starts at 7:40 P.M. and ends at 7:57 P.M. How long is the show?
- \_\_\_\_\_

8. The first train leaves the station at 6:15 A.M. The second train leaves at 6:55 A.M. How much later does the second train leave the station?
- \_\_\_\_\_

## Lesson Check (3.MD.1)

1. Marcus began playing basketball at 3:30 P.M. and stopped playing at 3:55 P.M. For how many minutes did he play basketball?
2. The school play started at 8:15 P.M. and ended at 8:56 P.M. How long was the school play?

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## Spiral Review (3.OA.1, 3.OA.6, 3.NBT.2, 3.NBT.3)

3. Each car has 4 wheels. How many wheels do 7 cars have?
4. What number completes the equations?

$$3 \times \blacksquare = 27 \quad 27 \div 3 = \blacksquare$$

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5. There are 20 napkins in each package. Kelli bought 8 packages for her party. How many napkins did Kelli buy in all?
6. Mr. Martin drove 290 miles last week. This week he drove 125 miles more than last week. How many miles did Mr. Martin drive this week?

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Name \_\_\_\_\_

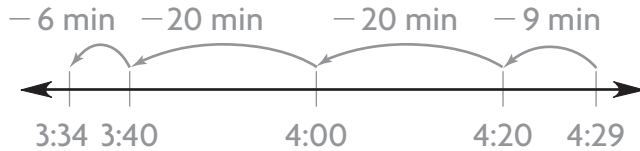
## Use Time Intervals



**COMMON CORE STANDARD—3.MD.1**  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

### Find the starting time.

1. Ending time: 4:29 P.M.  
Elapsed time: 55 minutes



**3:34 P.M.**

2. Ending time: 10:08 A.M.  
Elapsed time: 30 minutes



### Find the ending time.

3. Starting time: 2:15 A.M.  
Elapsed time: 45 minutes



4. Starting time: 6:57 P.M.  
Elapsed time: 47 minutes



## Problem Solving



5. Jenny spent 35 minutes doing research on the Internet. She finished at 7:10 P.M. At what time did Jenny start her research?
6. Clark left for school at 7:43 A.M. He got to school 36 minutes later. At what time did Clark get to school?

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## Lesson Check (3.MD.1)

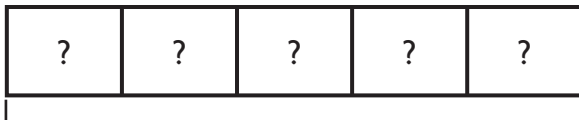
1. Cody and his friends started playing a game at 6:30 P.M. It took them 37 minutes to finish the game. At what time did they finish?  

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2. Delia worked for 45 minutes on her oil painting. She took a break at 10:35 A.M. At what time did Delia start working on the painting?  

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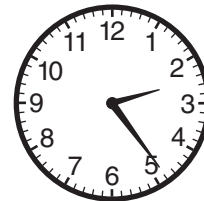
## Spiral Review (3.OA.2, 3.OA.7, 3.MD.1)

3. Sierra has 30 collector's pins. She wants to put an equal number of pins in each of 5 boxes. How many pins should she put in each box?



30 pins

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4. What time is shown on the clock?

5. Ricardo has 32 books to put on 4 shelves. He puts the same number of books on each shelf. How many books does Ricardo put on each shelf?  

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6. Jon started playing a computer game at 5:35 P.M. He finished the game at 5:52 P.M. How long did Jon play the game?  

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Name \_\_\_\_\_

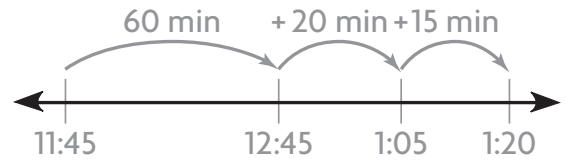
**Problem Solving • Time Intervals**



**COMMON CORE STANDARD—3.MD.1**  
*Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.*

**Solve each problem. Show your work.**

- Hannah wants to meet her friends downtown. Before leaving home, she does chores for 60 minutes and eats lunch for 20 minutes. The walk downtown takes 15 minutes. Hannah starts her chores at 11:45 A.M. At what time does she meet her friends?



**1:20 P.M.**

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- Katie practiced the flute for 45 minutes. Then she ate a snack for 15 minutes. Next, she watched television for 30 minutes, until 6:00 P.M. At what time did Katie start practicing the flute?

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- Nick gets out of school at 2:25 P.M. He has a 15-minute ride home on the bus. Next, he goes on a 30-minute bike ride. Then he spends 55 minutes doing homework. At what time does Nick finish his homework?

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- The third-grade class is going on a field trip by bus to the museum. The bus leaves the school at 9:45 A.M. The bus ride takes 47 minutes. At what time does the bus arrive at the museum?

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## Lesson Check (3.MD.1)

1. Gloria went to the mall and spent 50 minutes shopping. Then she had lunch for 30 minutes. If Gloria arrived at the mall at 11:00 A.M., at what time did she finish lunch?
2. The ball game begins at 2:00 P.M. It takes Ying 30 minutes to get to the ballpark. At what time should Ying leave home to get to the game 30 minutes before it starts?

## Spiral Review (3.OA.2, 3.OA.4, 3.NBT.2, 3.NF.3d)

3. Write the fractions  $\frac{2}{4}$ ,  $\frac{2}{8}$ , and  $\frac{2}{6}$  in order from least to greatest.
4. Find the unknown factor.

$$6 \times \blacksquare = 36$$

5. There were 405 books on the library shelf. Some books were checked out. Now there are 215 books left on the shelf. How many books were checked out?
6. Savannah has 48 photos. She places 8 photos on each page of her photo album. How many pages in the album does she use?

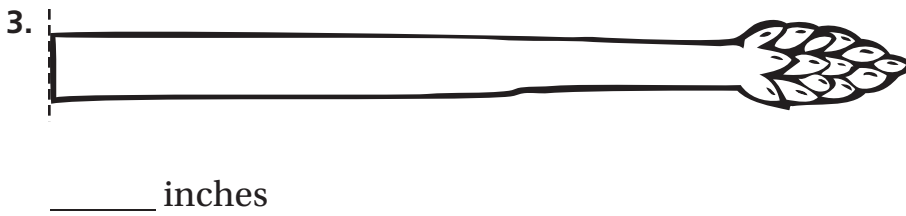
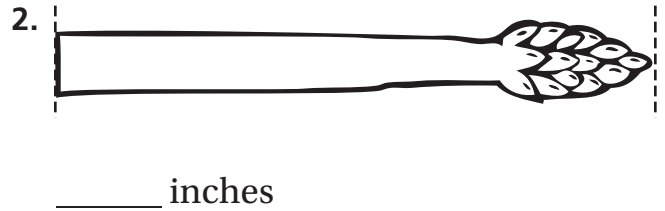
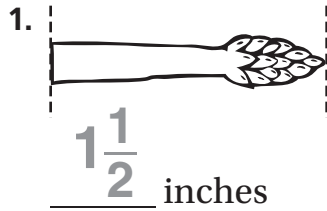
Name \_\_\_\_\_

**Measure Length**

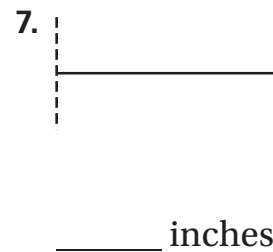
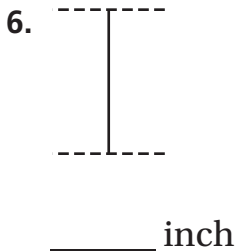
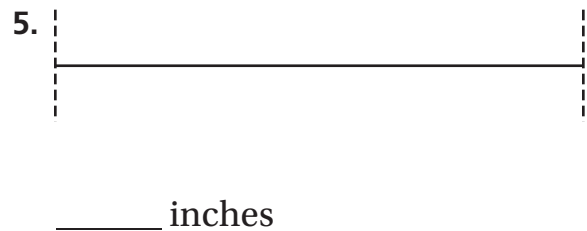


**COMMON CORE STANDARD—3.MD.4**  
Represent and interpret data.

**Measure the length to the nearest half inch.**



**Measure the length to the nearest fourth inch.**



**Problem Solving**

**Use a separate sheet of paper for 8.**

8. Draw 8 lines that are between 1 inch and 3 inches long. Measure each line to the nearest fourth inch, and make a line plot.

\_\_\_\_\_

9. The tail on Alex’s dog is  $5\frac{1}{4}$  inches long. This length is between which two inch-marks on a ruler?

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## Lesson Check (3.MD.4)

1. What is the length of the eraser to the nearest half inch?
2. What is the length of the leaf to the nearest fourth inch?



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## Spiral Review (3.OA.7, 3.MD.1)

3. Write the equations included in the same set of related facts as  $6 \times 8 = 48$ .
4. Brooke says there are 49 days until July 4. There are 7 days in a week. In how many weeks will it be July 4?

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5. It is 20 minutes before 8:00 in the morning. What time is this?  
Use A.M. or P.M.
6. Marcy played the piano for 45 minutes. She stopped playing at 4:15 P.M. At what time did she start playing the piano?

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Name \_\_\_\_\_

# Estimate and Measure Liquid Volume



**COMMON CORE STANDARD—3.MD.2**  
Solve problems involving measurement and estimation of intervals of time, liquid measures, and masses of objects.

Estimate how much liquid volume there will be when the container is filled. Write *more than 1 liter*, *about 1 liter*, or *less than 1 liter*.

1. large milk container



**more than  
1 liter**

2. small milk container



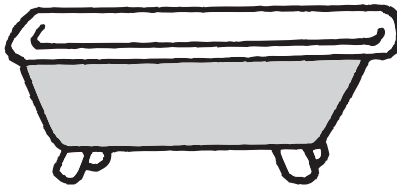
3. water bottle



4. spoonful of water



5. bathtub filled halfway



6. filled eyedropper



## Problem Solving



Use the pictures for 7–8. Alan pours water into four glasses that are the same size.

7. Which glass has the most amount of water? \_\_\_\_\_

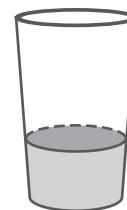
8. Which glass has the least amount of water? \_\_\_\_\_



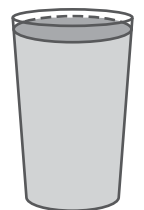
**A**



**B**



**C**



**D**

## Lesson Check (3.MD.2)

1. Felicia filled the bathroom sink with water. Is the amount more than 1 liter, about 1 liter, or less than 1 liter?
2. Kyle needed about 1 liter of water to fill a container. Did Kyle most likely fill a small glass, a spoon, or a vase?

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## Spiral Review (3.OA.5, 3.NF.1, 3.MD.1, 3.MD.4)

3. Cecil had 6 ice cubes. He put 1 ice cube in each glass. In how many glasses did Cecil put ice cubes?
4. Juan has 12 muffins. He puts  $\frac{1}{4}$  of the muffins in a bag. How many muffins does Juan put in the bag?



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5. What time is shown on the clock?

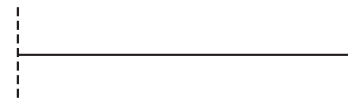


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6. Julianne drew the line segment below. Use your ruler to measure the segment to the nearest fourth inch.



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Name \_\_\_\_\_

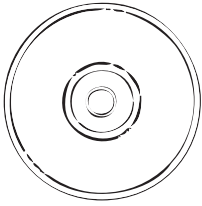
## Estimate and Measure Mass



**COMMON CORE STANDARD—3.MD.2**  
Solve problems involving measurement and intervals of time, liquid volumes, and masses of objects.

Choose the unit you would use to measure the mass. Write *gram* or *kilogram*.

1. CD



gram

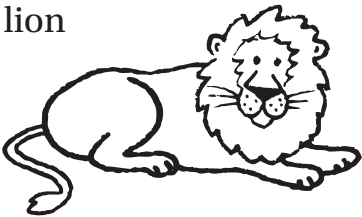
2. boy



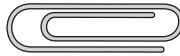
3. bag of sugar



4. lion



5. paper clip

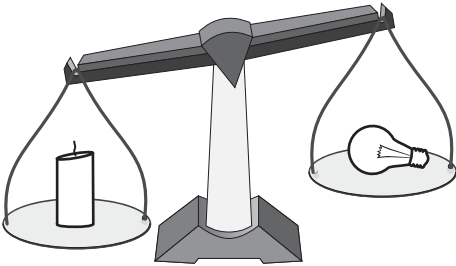


6. empty plastic bottle



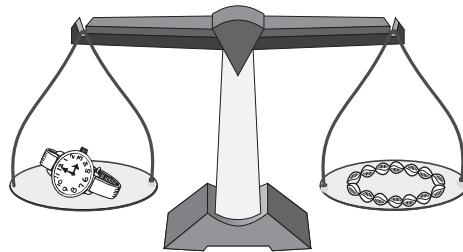
Compare the masses of the objects. Write *is less than*, *is the same as*, or *is more than*.

7.



The mass of the candle \_\_\_\_\_  
the mass of the light bulb.

8.



The mass of the watch \_\_\_\_\_  
the mass of the necklace.

### Problem Solving

9. A red ball has a mass that is less than 1 kilogram. A blue ball has a mass of 1 kilogram. Is the mass of the blue ball more than or less than the mass of the red ball?

\_\_\_\_\_

10. Brock's dog is a collie. To find the mass of his dog, should Brock use *grams* or *kilograms*?

\_\_\_\_\_

## Lesson Check (3.MD.2)

1. Which unit of measure would you use to measure the mass of a grape? Write *gram* or *kilogram*.
2. Elsie wants to find the mass of her pony. Which unit should she use? Write *gram* or *kilogram*.

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## Spiral Review (3.OA.2, 3.OA.8, 3.MD.2)

3. Marsie blew up 24 balloons. She tied the balloons together in groups of 4. How many groups did Marsie make?
4. Clark used the order of operations to find the unknown number in  $15 - 12 \div 3 = n$ . What is the value of the unknown number?

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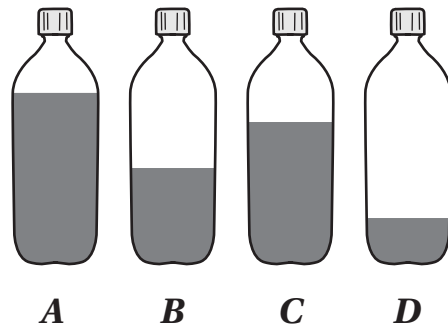
Use the pictures for 5–6. Ralph pours juice into four bottles that are the same size.

5. Which bottle has the most amount of juice?

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6. Which bottle has the least amount of juice?

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Name \_\_\_\_\_

## Solve Problems About Liquid Volume and Mass



**COMMON CORE STANDARD—3.MD.2**  
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

**Write an equation and solve the problem.**

- Luis was served 145 grams of meat and 217 grams of vegetables at a meal. What was the total mass of the meat and the vegetables?
- The gas tank of a riding mower holds 5 liters of gas. How many 5-liter gas tanks can you fill from a full 20-liter gas can?

**Think:** Add to find how much in all.

$$\underline{145} \oplus \underline{217} = \underline{\quad} \quad \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad} \quad \underline{\quad}$$

- To make a lemon-lime drink, Mac mixed 4 liters of lemonade with 2 liters of limeade. How much lemon-lime drink did Mac make?
- A nickel has a mass of 5 grams. There are 40 nickels in a roll of nickels. What is the mass of a roll of nickels?

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad} \quad \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad} \quad \underline{\quad}$$

- Four families share a basket of 16 kilograms of apples equally. How many kilograms of apples does each family get?
- For a party, Julia made 12 liters of fruit punch. There were 3 liters of fruit punch left after the party. How much fruit punch did the people drink at the party?

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad} \quad \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad} \quad \underline{\quad}$$

### Problem Solving

- Zoe's fish tank holds 27 liters of water. She uses a 3-liter container to fill the tank. How many times does she have to fill the 3-liter container in order to fill her fish tank?  
\_\_\_\_\_
- Adrian's backpack has a mass of 15 kilograms. Theresa's backpack has a mass of 8 kilograms. What is the total mass of both backpacks?  
\_\_\_\_\_

## Lesson Check (3.MD.2)

1. Mickey's beagle has a mass of 15 kilograms. His dachshund has a mass of 13 kilograms. What is the combined mass of the two dogs?  

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2. Lois put 8 liters of water in a bucket for her pony. At the end of the day, there were 2 liters of water left. How much water did the pony drink?  

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## Spiral Review (3.OA.8, 3.NF.3d, 3.MD.1, 3.MD.2)

3. Josiah has 3 packs of toy animals. Each pack has the same number of animals. Josiah gives 6 animals to his sister Stephanie. Then Josiah has 9 animals left. How many animals were in each pack?  

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4. Tom jogged  $\frac{3}{10}$  mile, Betsy jogged  $\frac{5}{10}$  mile, and Sue jogged  $\frac{2}{10}$  mile. Who jogged a distance longer than  $\frac{4}{10}$  mile?  

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5. Bob started mowing at 9:55 A.M. It took him 25 minutes to mow the front yard and 45 minutes to mow the back yard. At what time did Bob finish mowing?  

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6. Juliana wants to find the mass of a watermelon. What unit should she use?  

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