Name _____

Time to the Minute

Tommy wants to know what time the clock shows. He also wants to know one way to write the time.

Step 1 Where is the hour hand pointing? What is the hour?
It points just after the 6, so the hour is 6.

Step 2 Where is the minute hand pointing?
It points just after the 3.

Count the minutes. Count zero at the 12. Count on by fives: **5, 10, 15.**

Then count on by ones: **16, 17.**

So, the time is **6:17**, or **seventeen minutes after six**.

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

1.

_____

_____

_____

2.

_____

_____

_____

3.

_____

_____

_____

4.

_____

_____

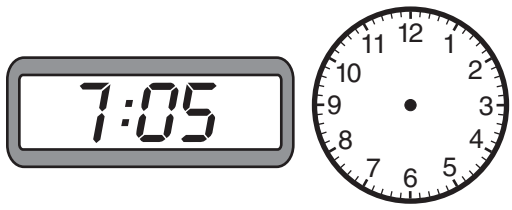
_____

Name _____

Time Tester

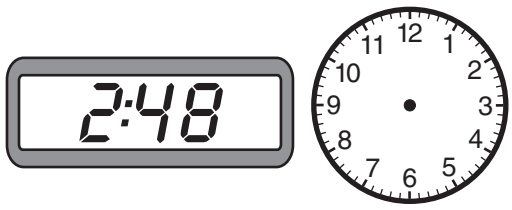
Solve the problem using the digital clock shown. Then use the analog clock at the right of the digital clock to show your answer.

1. Andy ate breakfast when his clock had the time shown. The clock stopped 12 minutes before breakfast. What time did Andy eat breakfast?



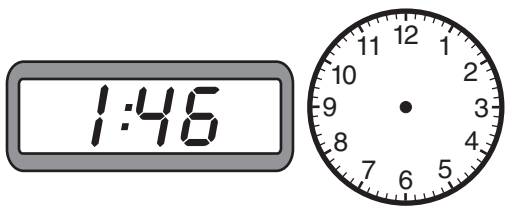
_____

2. Tyler left math class 23 minutes before the time shown. What time did Tyler leave math class?



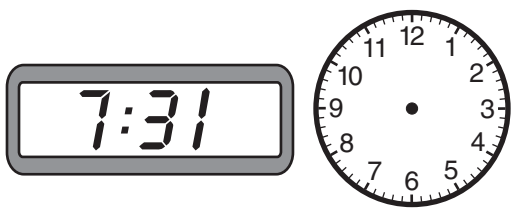
_____

3. Larry knows he has recess 14 minutes after the time shown. What time does Larry have recess?



_____

4. **Stretch Your Thinking** Renee arrived at school at the time shown. The clock at school was 4 minutes fast. What time was shown on the clock at school when Renee arrived?



_____

Name _____

A.M. and P.M.

Lori and her father went shopping at the time shown on the clock at the right. How should Lori write the time?
Use A.M. or P.M.

Step 1 Read the time on the clock. 11:30

Step 2 Decide if the time is A.M. or P.M.

Write **P.M.** for times after noon and before midnight.

Write **A.M.** for times after midnight and before noon.

Think: Most people go shopping **during the day**.

So, Lori should write the time as **11:30 A.M.**

REMEMBER

Noon is 12:00 in the daytime.

Midnight is 12:00 at night.

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

1. leave school

_____

2. eat dinner

_____

3. arrive at school

_____

4. Mackenzie's violin lesson starts at the time shown on the clock. Write the time using A.M. or P.M.

_____

5. The diner opens for breakfast at the time shown on the clock. Write the time using A.M. or P.M.

_____

Name _____

Time Order

Use A.M. or P.M. to write the time for each activity below. Then write the sequence, or order, of the times from A.M. to P.M.

1.

_____ _____ _____ _____

go to sleep | ride the bus to school | do homework | take guitar lesson

A.M. to P.M. in order:

_____ _____ _____ _____

2.

_____ _____ _____ _____

eat dinner | begin gym class | wake up | go to the library

A.M. to P.M. in order:

_____ _____ _____ _____

3. Write Math **Explain** how you found the order of the times in Exercise 2.

_____

_____

_____

_____

Name _____

Measure Time Intervals

Julia starts her homework at 4:20 P.M. She finishes at 5:00 P.M. How much time does Julia spend doing homework?

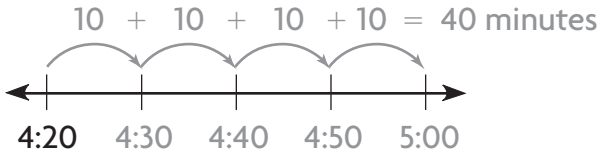
Elapsed time is the amount of time that passes from the start of an activity to the end of the activity.

Use a number line to find elapsed time.

Step 1 Begin with the start time, **4:20**.

Step 2 Skip count **by tens** to count the minutes from 4:20 to 5:00.

Step 3 Label the number line. Draw jumps for every 10 minutes until you get to 5:00.



Step 4 Add the minutes that have elapsed. **40 minutes**

So, Julia spends **40 minutes** doing homework.

Use the number line to find the elapsed time.

1. Start: 3:15 P.M. End: 3:45 P.M.

_____

2. Start: 11:05 A.M. End: 11:56 A.M.

_____

Find the elapsed time.

3. Start: 4:10 P.M. End: 4:46 P.M.

_____

4. Start: 10:30 A.M. End: 10:59 A.M.

_____

Name _____

How Much Time?

Find the elapsed time.

1. Mia's soccer practice started at 3:15 P.M. and ended at 4:10 P.M. How long was Mia's soccer practice?

_____

2. Alex started eating lunch at 1:20 P.M. He finished at 1:55 in the afternoon. How long did it take Alex to eat lunch?

_____

3. Rose started eating breakfast at 7:45 in the morning. She finished at 8:35. How long did it take for Rose to eat breakfast?

_____

4. Jackson went outside to look at the stars at 8:40 in the evening. He went back inside at 9:25 P.M. How long did Jackson look at the stars?

_____

5. Julio started his homework at 4:40 in the afternoon. He finished at 5:05 P.M. How long did it take Julio to finish his homework?

_____

6. **Stretch Your Thinking** Pilar wakes up at 6:45 A.M. If she eats breakfast 15 minutes later, at what time does Pilar eat breakfast?

_____

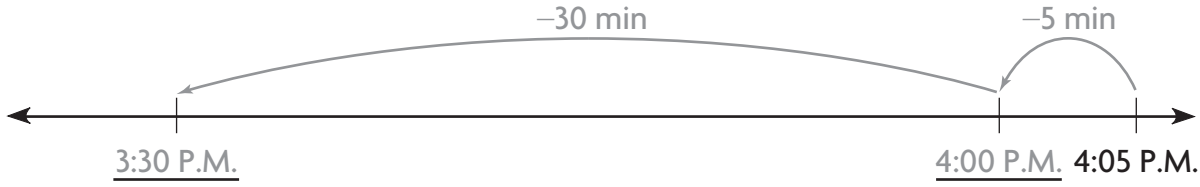
Name _____

Use Time Intervals

You can use a number line to find the starting time when you know the ending time and the elapsed time.

The ending time is 4:05 P.M. Use the number line to find the starting time if the elapsed time is 35 minutes.

Step 1	Step 2	Step 3
Find the ending time on the number line.	Jump back 5 minutes.	Jump back 30 minutes.
Think: The ending time is 4:05 P.M.	**Think:** Jump back 5 minutes to get to the hour.	**Think:** Jump back 30 minutes to get to a total of 35 minutes.
	You jump back to **4:00 P.M.**	You jump back to **3:30 P.M.**



So, the starting time is **3:30 P.M.**

1. Use the number line to find the starting time if the elapsed time is 25 minutes. _____

2. Use the number line to find the starting time if the elapsed time is 45 minutes. _____

Name _____

Missing Times

Find the missing times to complete the table.

	Starting Time	Ending Time	Elapsed Time
1.	4:15 P.M.		45 minutes
2.		12:45 P.M.	95 minutes
3.		2:45 P.M.	61 minutes
4.	3:45 A.M.		75 minutes
5.	8:32 A.M.		30 minutes
6.		7:25 P.M.	100 minutes
7.		8:37 P.M.	153 minutes
8.	12:35 P.M.		45 minutes
9.		1:33 A.M.	250 minutes
10.	3:13 P.M.		120 minutes
11.		12:17 P.M.	15 minutes

12. **Stretch Your Thinking** What would be the Ending Time in Exercise 10 if the Elapsed Time were 360 minutes? **Explain** how you found your answer.

_____

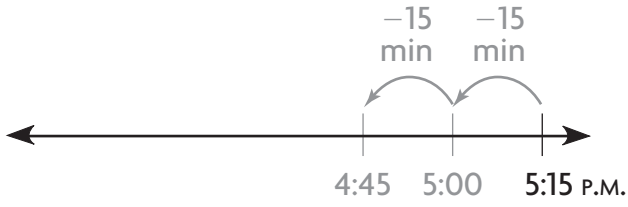
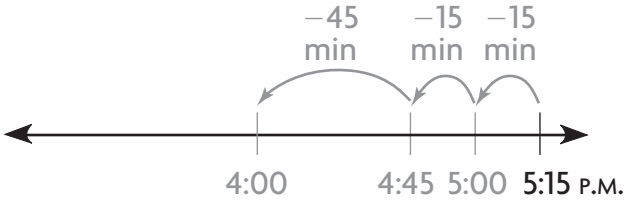
_____

_____

Name _____

Problem Solving • Time Intervals

As soon as Carter got home, he worked on his book report for 45 minutes. Then he did chores for 30 minutes. He finished at 5:15 P.M. At what time did Carter get home?

Read the Problem	Solve the Problem
What do I need to find? I need to find what time Carter got home.	• Find Carter's 5:15 P.M. finishing time on the number line. • Count back 30 minutes using two 15-minute jumps to find the time Carter started his chores. 4:45 P.M. 
What information do I need to use? Carter worked for 45 minutes on his report. He did chores for 30 minutes. He finished at 5:15 P.M.	• Count back 45 minutes for the time Carter worked on his report. The jumps end at 4:00 P.M. 
How will I use the information? I will use a number line and count back to find the time Carter got home.	So, Carter got home at 4:00 P.M.

1. Kiera must be at school at 7:45 A.M. The ride to school takes 15 minutes. She needs 45 minutes to eat breakfast and get ready. At what time should Kiera get up?

2. Jack and his family go to the movies. First, they eat lunch at 1:30 P.M. It takes them 40 minutes to eat. Then they drive 25 minutes to get to the movie theater. At what time do Jack and his family get to the theater?

Name _____

Spending Time at Camp

Tomas has to make a schedule for a day at camp. Use the information below to make a possible schedule that includes each activity. Use the number line to show when each activity will happen. Hint: Some activities might be possible at more than one time.

1. Breakfast starts at 8:00 A.M. and lasts for 30 minutes.
2. Lunch lasts 45 minutes and ends at 12:15 P.M.
3. The day at camp ends after lunch at 12:15 P.M.
4. Sports last 60 minutes.
5. Craft class starts right after breakfast and lasts 45 minutes.
6. Fishing lessons last 30 minutes.
7. Nature walk lasts 45 minutes and ends before sports.

8:00 A.M. 12:15 P.M.

8. How long is a day at camp? Write the elapsed time.

_____

9. **Stretch Your Thinking** Use the schedule and your number line. Can fishing happen at a different time? **Explain**.

_____

_____

_____

_____

Name _____

Measure Length

You can measure length to the nearest half or fourth inch.

Use a ruler to measure lines A–C to the nearest half inch.

Step 1 Line up the left end of Line A with the zero mark on the ruler.

Step 2 The right end of Line A is between the half-inch marks for 1 and $1\frac{1}{2}$.

The mark that is closest to the right end is for $1\frac{1}{2}$ inches.

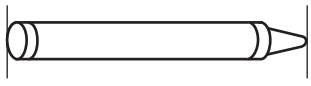
So, the length of Line A to the nearest half inch is $1\frac{1}{2}$ inches.

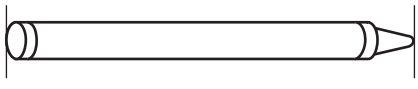
Repeat Steps 1 and 2 for lines B and C.

The length of Line B to the nearest half inch is $2\frac{1}{2}$ inches.

The length of Line C to the nearest half inch is 3 inches.

Measure the length to the nearest half inch. Is the crayon closest to $1\frac{1}{2}$ inches, 2 inches, or $2\frac{1}{2}$ inches?

1.  ____ inches

2.  ____ inches

Name _____

Measurement Hunt

Use a ruler to find objects that match each measure. Write the name of each object to complete the table.

	Nearest Half Inch	Object	Nearest Fourth Inch	Object
1.	$1\frac{1}{2}$		$1\frac{1}{4}$	
2.	$2\frac{1}{2}$		$2\frac{1}{4}$	
3.	$3\frac{1}{2}$		$3\frac{1}{4}$	
4.	$4\frac{1}{2}$		$4\frac{3}{4}$	
5.	5		$5\frac{1}{4}$	
6.	$6\frac{1}{2}$		$6\frac{3}{4}$	
7.	$7\frac{1}{2}$		$7\frac{1}{4}$	
8.	$8\frac{1}{2}$		$8\frac{1}{4}$	
9.	9		9	

10. Write Math How did you identify objects to match each measure? **Explain.**

_____

_____

_____

_____

_____

Name _____

Estimate and Measure Liquid Volume

Liquid volume is the amount of liquid in a container. You can measure liquid volume using the metric unit **liter** (L).

A water bottle holds about 1 liter. Estimate how much liquid a plastic cup and a fish bowl will hold. Then write the containers in order from the greatest to least liquid volume.

A plastic cup holds **less than 1 liter**.

A water bottle holds about 1 liter.

A fish bowl holds **more than 1 liter**.

Think: A plastic cup is *smaller* than a water bottle.

Think: A fish bowl is *larger* than a water bottle.

So, the order of the containers from greatest to least liquid volume is **fish bowl**, **water bottle**, **plastic cup**.

1. A wading pool is filled with water. Is the amount *more than 1 liter, about 1 liter,* or *less than 1 liter*?

_____

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*.

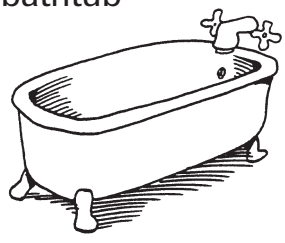
2. vase

_____

3. mug

_____

4. bathtub



_____

Name _____

Estimate Liquid Volumes

Choose a container that you estimate will have the liquid volume given when the container is filled. Draw and label the container you chose.

Liquid Volume	Container
1. less than 1 liter	
2. about 1 liter	
3. more than 1 liter	

4. Write Math How did you decide what container to choose for each liquid volume? **Explain.**

_____

_____

_____

_____

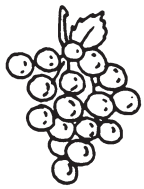
Name _____

Estimate and Measure Mass

Mass is the amount of matter in an object. You can measure mass using the metric units **gram** (g) and **kilogram** (kg).

Should you use gram or kilogram to measure the mass of a penny?

The mass of one grape is about 1 gram.



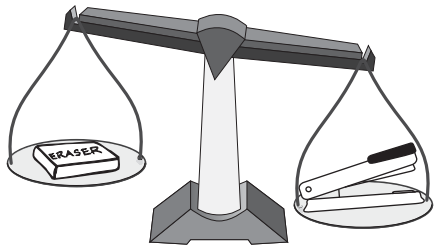
The mass of a book is about 1 kilogram.

Think: The mass of a penny is closer to the mass of a grape than to the mass of a book. So, use **grams** to measure the mass of a penny.

You can use a pan balance to compare the masses of an eraser and a stapler.

Think: The pan with the stapler is lower.

So, the mass of a stapler **is more than** the mass of an eraser.

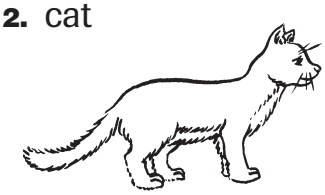


Choose the unit you would use to measure the mass. Write *gram* or *kilogram*.

1. cherry

_____

2. cat



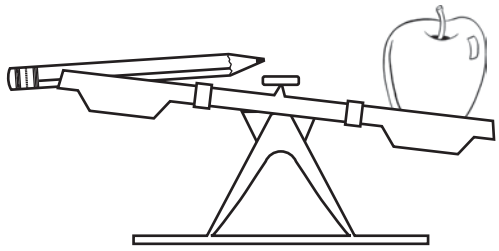
_____

3. pencil

_____

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

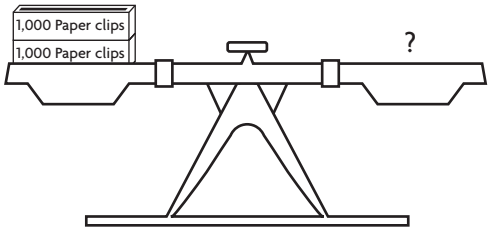
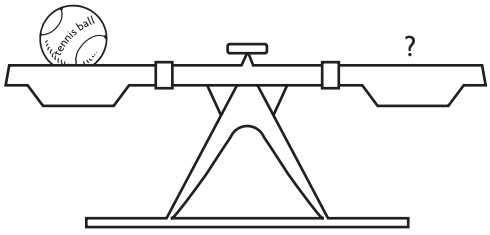
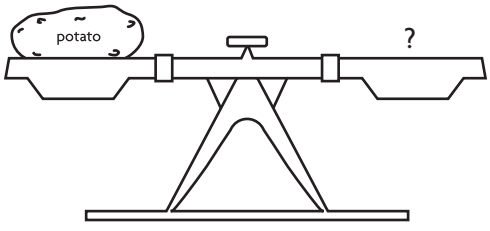
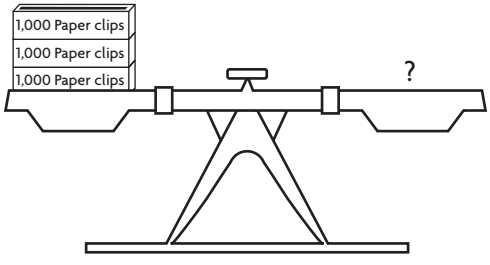
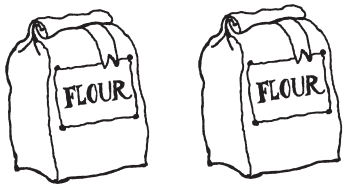
The mass of the pencil _____ the mass of the apple.



Name _____

Balancing Act

Look at the object on the left pan of the balance in Column A. Find the object in Column B you would put on the right pan to make the pans balance.

Column A		Column B	
1. 	_____	A.  egg	
2. 	_____	B.  bowling ball	
3. 	_____	C.  apple	
4. 	_____	D. 	

5. Write Math **Explain** how you decided which objects have the same mass.

_____

_____

_____

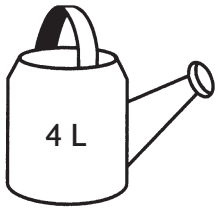
Name _____

Solve Problems About Liquid Volume and Mass

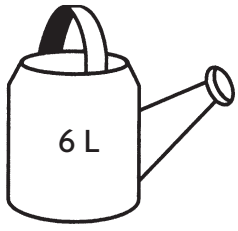
You can use a model or write an equation to solve problems about liquid volume and mass.

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.

10 L

Think: Add to find the total.

4 L + 6 L = 10 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.

4 ⊕ 6 = 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?

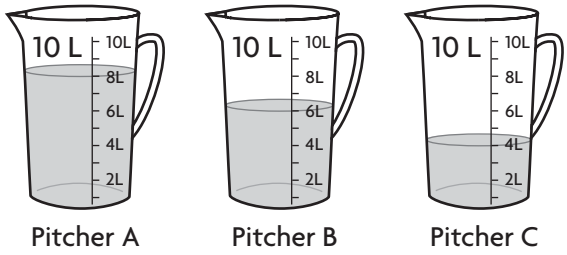
___ ◯ ___ = ___ _____

Name _____

Pitcher Perfect

Solve the problem.

1. Kayla pours juice from Pitcher *A* into Pitcher *B* until both have the same amount of juice. Then she pours juice from Pitchers *A* and *B* into Pitcher *C* until all three pitchers have the same amount of juice. How many liters of juice will be in each pitcher? Explain.



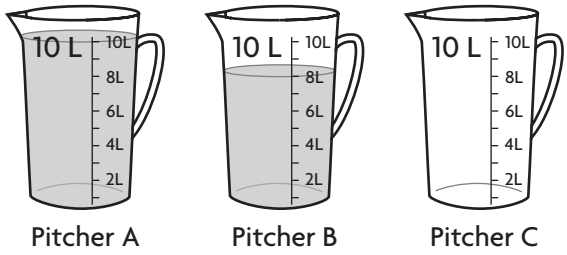
_____

_____

_____

_____

2. Kirit pours milk from Pitcher *A* into Pitcher *B* until it has 2 more liters of milk than Pitcher *A*. Then she pours milk from Pitcher *A* into Pitcher *C* until it has one-half as much milk as Pitcher *B*. How many liters of milk does Kirit pour into Pitcher *C*? Explain.



_____

_____

_____

3. **Stretch Your Thinking** Describe another way to fill Pitcher *C* to get the same amount as in Problem 2.

_____

_____