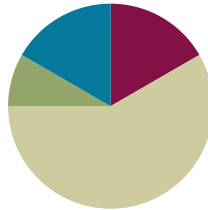


## Lesson 15

**Objective:** Tell time to the nearest five minutes; relate *a.m.* and *p.m.* to time of day.

### Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(35 minutes)
■ Student Debrief	(10 minutes)
<b>Total Time</b>	<b>(60 minutes)</b>



### Fluency Practice (10 minutes)

- Subtraction with Renaming **2.NBT.7** (5 minutes)
- Happy Counting by Fives **2.NBT.2** (1 minute)
- Grade 2 Core Fluency Differentiated Practice Sets **2.OA.2** (4 minutes)

### Subtraction with Renaming (5 minutes)

Materials: (S) Personal white board, hundreds place value chart (Lesson 3 Fluency Template)

Note: This fluency activity reviews the application of a chip model while recording with the algorithm. Allow students work time between each problem, and reinforce place value understandings by having students say their answer in both unit form and in standard form. Students use their personal white boards and a place value chart to solve.

T: Slide the place value chart template into your personal white board.

T: (Write  $300 - 118$  horizontally on the board.) Let's use a chip model to subtract. On your personal white board, record your work using the algorithm.

S: (Solve.)

T:  $300 - 118$  is...?

S: 182.

Continue with the following possible sequence:  $500 - 276$ ,  $700 - 347$ ,  $803 - 239$ ,  $506 - 271$ ,  $800 - 108$ , and  $900 - 507$ .

### Happy Counting by Fives (1 minute)

- T: Let's do some Happy Counting!
- T: Let's count by fives, starting at 0. Ready? (Rhythmically point up until a change is desired. Show a closed hand, and then point down. Continue, mixing it up.)
- S: 0, 5, 10, 15, 20. (Switch directions.) 15, 10. (Switch directions.) 15, 20, 25, 30, 35, 40. (Switch directions.) 35, 30, 25. (Switch directions.) 30, 35, 40, 45. (Switch directions.) 40, 35, 30. (Switch directions.) 35, 40, 45, 50. (Switch directions.) 45, 40, 35. (Switch directions.) 40, 45, 50. (Switch directions.) 45, 40, 35, 30, 25, 20, 15.

### Grade 2 Core Fluency Differentiated Practice Sets (4 minutes)

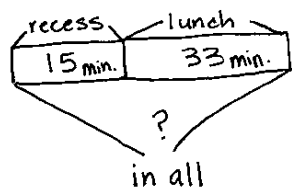
Materials: (S) Core Fluency Practice Sets from Lesson 3

Note: During Topic D and for the remainder of the year, each day's fluency includes an opportunity for review and mastery of the sums and differences with totals through 20 by means of the Core Fluency Practice Sets or Sprints. The process is detailed, with Practice Sets provided, in Lesson 3.

### Application Problem (5 minutes)

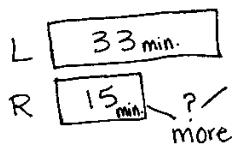
At Memorial School, students have a quarter hour for morning recess and 33 minutes for a lunch break. How much free time do they have in all? How much more time for lunch than recess do they have?

Note: Students have the opportunity to solve another two-step problem involving addition and subtraction with time. At this stage, some do not need to draw a tape diagram, but for those who struggle, encourage them to do so.



$$33 \xrightarrow{+10} 43 \xrightarrow{+5} 48$$

Students have 48 free minutes in all.



$$33 \xrightarrow{-10} 23 \xrightarrow{-3} 20 \xrightarrow{-2} 18$$

Students have 18 more minutes for lunch than recess.



#### NOTES ON MULTIPLE MEANS OF REPRESENTATION:

For students who are working below grade level, scaffold the Application Problem by guiding them through the problem-solving process through questioning. Give them a number bond template and ask, "Are we looking for a part or the whole when we want to know how much free time students have in all? What do they have more time for: recess or lunch? How can we find out how much more time they have for lunch?"

## Concept Development (35 minutes)

Materials: (T) Telling time story (Template) as a display or booklet, document camera (if available)

(S) Telling time story (Template) as a booklet, crayons (optional)

Note: Students are asked to tell the current time of day. The vignette uses an example of a morning class. Adjust the questions to fit if math is scheduled for the afternoon.

Images are provided in a format that can either be printed as a full-size book to be read to the whole class, as a booklet to be distributed, or as images to project. The four-on-a-page template appears before the full-page version in this document. Copies of either version may be given to students if resources are available, and they can color them in school or at home to make a home connection. The pictures can also be either cut out and ordered by students or left in chronological order as they appear.

If the teacher is showing the book to the group, gather students in the center of the room.

T: Look at the classroom clock. What time is it now?

S: (Tell time to the nearest five minutes.)

T: Where does the clock tell us if it is morning or night?

S: The clock doesn't tell that. → The sun is shining, so it is morning. → We know it is morning because we just got to school. → We haven't had lunch yet, so it must be morning.

T: Will the clock look exactly like this again today?

S: I'm not sure. → Yes! It will show [insert time] again tonight.

T: That's right. The clock will look just like it does now at [insert time] tonight.

T: (Hold up the analog clock showing the time that school starts.) What time does this clock show?

S: (Tell time.)

T: What do we do at [time] each morning?

S: That's the beginning of school!

T: What do you do around this time each evening?

S: Get ready for bed. → Finish my homework. → Take a shower.

Repeat using a few other important times in the class schedule, and include both morning and afternoon times.

T: Which comes first in the alphabet, A or P?

S: A!

T: Yes! Which comes first in a day, the morning or the afternoon?

S: The morning!

T: Yes! That's an easy way to remember **a.m.** and **p.m.** (Write a.m. and p.m. on the board.)

T: We use a.m. as a short way to talk about the time between 12:00 midnight and 12:00 noon, or morning.



### NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Support English language learners' oral language by providing them with sentence starters to aid them in sharing their ideas with a partner. "The sky would be \_\_\_\_\_ if it were 10 p.m." and "When it is 5 a.m., I am \_\_\_\_\_."

- T: We use p.m. as a way to talk about the time between 12:00 noon and midnight.
- T: Remember that a digital clock shows the time like we are used to writing it. Turn and talk. Why do you think it's called a digital clock?
- S: Because it's electronic, like a digital camera. → Because it shows the digits of the hour and minutes.
- T: Yes! It shows the time using digits instead of hands pointing to a number.
- T: Let's read our story now.

Distribute booklets or images to sort if you are using them; otherwise, show images using a book or document camera. Have students look at the pictures and put them in order to tell the story. This can be done as a whole class or in small groups.

Relate the time of day shown to a.m. and p.m. throughout. Students need to recognize and fill in the time and a.m. or p.m. on the line for each picture. Encourage them to discuss how they know whether it is a.m. or p.m. Ask questions like, "What would the sky look like outside if this were p.m. instead of a.m. (or vice versa)?"

If there is time, have students color the pictures, or send the booklet home to be colored and shared with family.

When students have completed this activity, instruct them to work on the Problem Set.

### Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW approach used for Application Problems.

### Student Debrief (10 minutes)

**Lesson Objective:** Tell time to the nearest five minutes; relate *a.m.* and *p.m.* to time of day.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 15 Problem Set 2•8

Name Mary Jo Date \_\_\_\_\_

1. Decide whether the activity below would happen in the a.m. or the p.m. Circle your answer.

a. Waking up for school  a.m. /  p.m.

b. Eating dinner  a.m. /  p.m.

c. Reading a bedtime story  a.m. /  p.m.

d. Making breakfast  a.m. /  p.m.

e. Having a play date after school  a.m. /  p.m.

f. Going to bed  a.m. /  p.m.

g. Eating a piece of cake  a.m. /  p.m.

h. Eating lunch  a.m. /  p.m.

COMMON CORE Lesson 15: Tell time to the nearest five minutes; relate a.m. and p.m. to time of day. engage<sup>ny</sup> 8.D.34  
Date: 11/12/14

Any combination of the questions below may be used to lead the discussion.


- For Problem 2(a), how did you determine where to place the minute hand?
- For Problem 2(b), where did you draw the hour hand? Why?
- Explain to your partner the difference between **a.m.** and **p.m.**
- What is the difference between 12 a.m. and 12 p.m.? What might you be doing at those times?
- When you are sleeping at night, are you sleeping during the a.m. or p.m.? Explain your thinking.


**Exit Ticket (3 minutes)**

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.


Lesson 15 Problem Set 2•8


2. Draw the hands on the analog clock to match the time on the digital clock. Then, circle **a.m.** or **p.m.** based on the description given.


a. Brushing your teeth after you wake up  
7:10  **a.m.** or  **p.m.** 

b. Finishing homework  
5:55  **a.m.** or  **p.m.** 

3. Write what you might be doing if it were **a.m.** or **p.m.**

a. **a.m.** waking up 

b. **p.m.** reading 

4. What time does the clock show?  
3:55 

COMMON CORE Lesson 15: Tell time to the nearest five minutes; relate a.m. and p.m. to time of day. engage<sup>ny</sup> 8.D.35  
 Date: 11/11/14

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Decide whether the activity below would happen in the a.m. or the p.m. Circle your answer.

a. Waking up for school                      a.m. / p.m.

b. Eating dinner                                a.m. / p.m.

c. Reading a bedtime story                a.m. / p.m.

d. Making breakfast                         a.m. / p.m.

e. Having a play date after school        a.m. / p.m.

f. Going to bed                                 a.m. / p.m.

g. Eating a piece of cake                    a.m. / p.m.

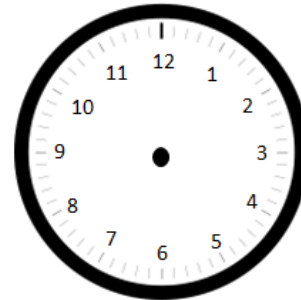
h. Eating lunch                                a.m. / p.m.

2. Draw the hands on the analog clock to match the time on the digital clock. Then, circle **a.m.** or **p.m.** based on the description given.

a. Brushing your teeth after you wake up

**7:10**

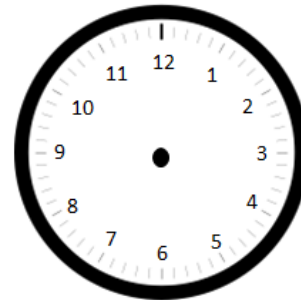
**a.m. or p.m.**



b. Finishing homework

**5:55**

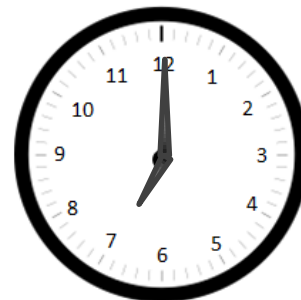
**a.m. or p.m.**



3. Write what you might be doing if it were **a.m.** or **p.m.**

a. **a.m.** \_\_\_\_\_

b. **p.m.** \_\_\_\_\_



4. What time does the clock show?

\_\_\_\_\_ : \_\_\_\_\_



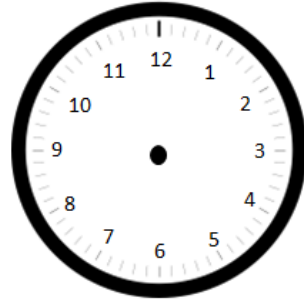
Name \_\_\_\_\_

Date \_\_\_\_\_

Draw the hands on the analog clock to match the time on the digital clock. Then, circle **a.m.** or **p.m.** based on the description given.

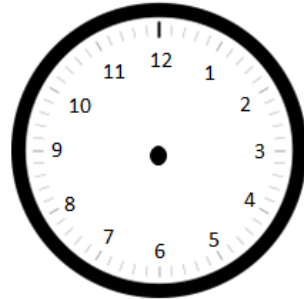
1. The sun is rising.

**6:10** a.m. or p.m.



2. Walking the dog

**3:40** a.m. or p.m.





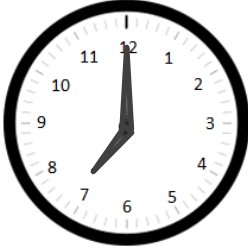
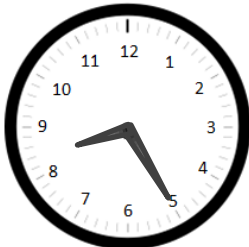
Name \_\_\_\_\_

Date \_\_\_\_\_

1. Decide whether the activity below would happen in the a.m. or the p.m. Circle your answer.

a. Eating breakfast	a.m. / p.m.	b. Doing homework	a.m. / p.m.
c. Setting the table for dinner	a.m. / p.m.	d. Waking up in the morning	a.m. / p.m.
e. After-school dance class	a.m. / p.m.	f. Eating lunch	a.m. / p.m.
g. Going to bed	a.m. / p.m.	h. Heating up dinner	a.m. / p.m.

2. Write the time displayed on the clock. Then, choose whether the activity below would happen in the a.m. or the p.m.

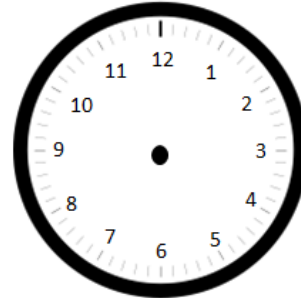
<p>a. Brushing your teeth before school</p> <div style="text-align: center;">  <p>_____ : _____ a.m. / p.m.</p> </div>	<p>b. Eating dessert after dinner</p> <div style="text-align: center;">  <p>_____ : _____ a.m. / p.m.</p> </div>
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3. Draw the hands on the analog clock to match the time on the digital clock. Then, circle **a.m.** or **p.m.** based on the description given.

a. Brushing your teeth before bedtime

8:15

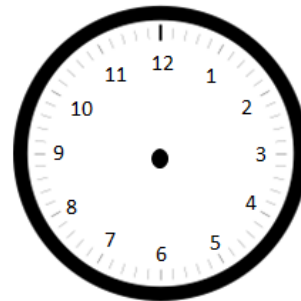
a.m. or p.m.



b. Recess after lunch

12:30

a.m. or p.m.



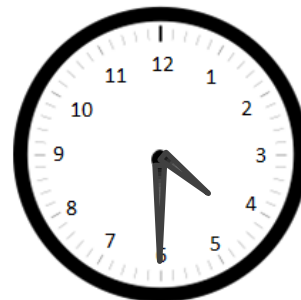
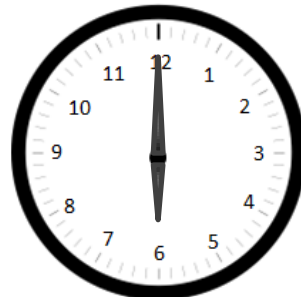
4. Write what you might be doing if it were **a.m.** or **p.m.**

a. **a.m.** \_\_\_\_\_

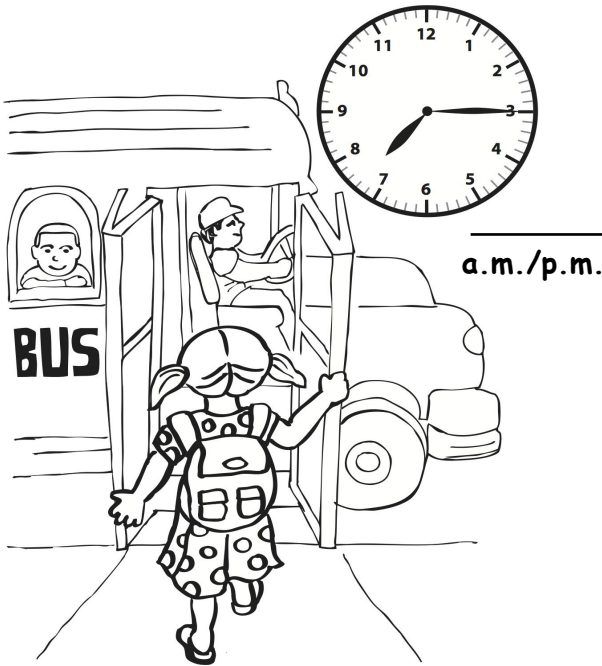
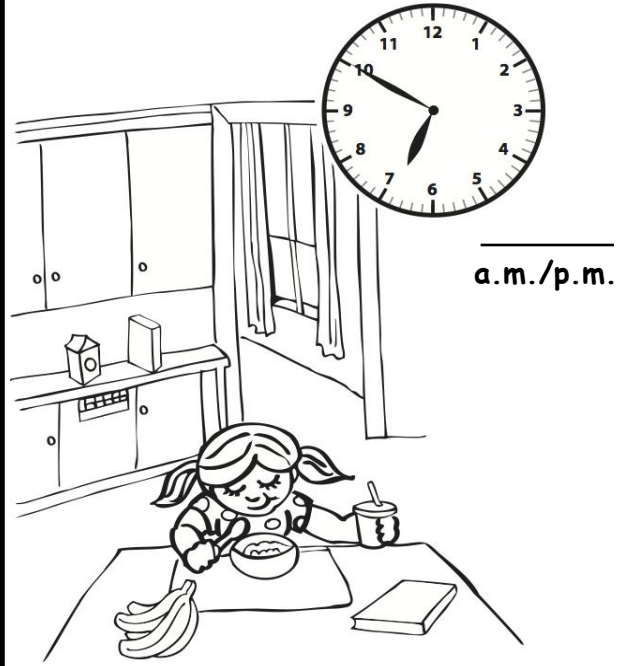
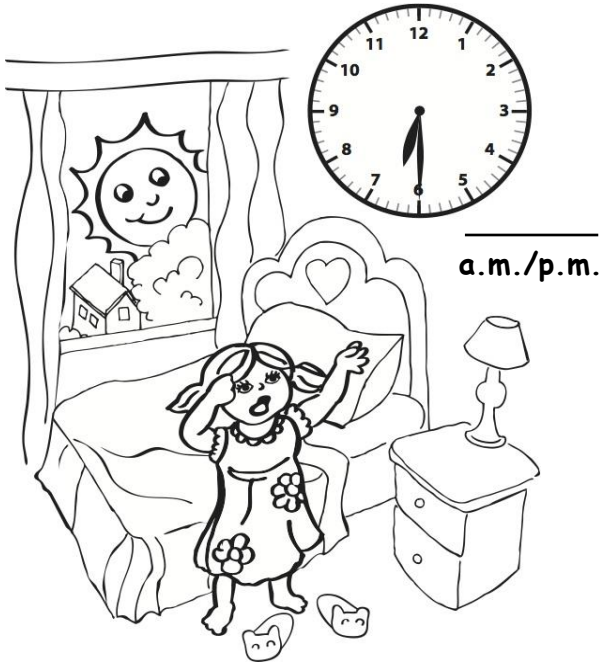
b. **p.m.** \_\_\_\_\_

c. **a.m.** \_\_\_\_\_

d. **p.m.** \_\_\_\_\_



Write the time. Circle a.m. or p.m.



telling time story (small)

Write the time. Circle a.m. or p.m.

\_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ a.m./p.m.

\_\_\_\_\_ a.m./p.m.

telling time story (small)

Write the time. Circle a.m. or p.m.



telling time story (large)



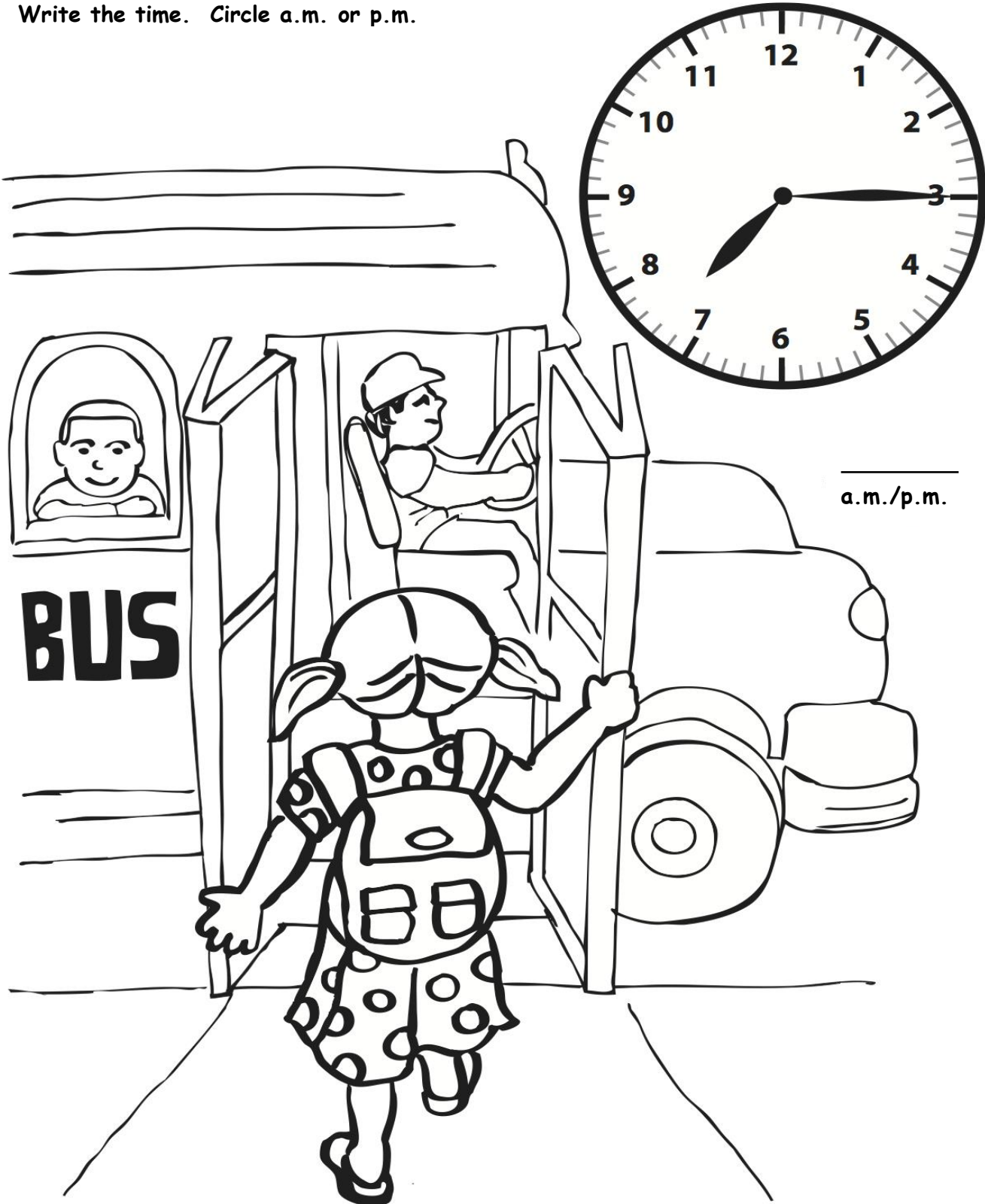
Write the time. Circle a.m. or p.m.



\_\_\_\_\_ a.m./p.m.

telling time story (large)

Write the time. Circle a.m. or p.m.



telling time story (large)

Write the time. Circle a.m. or p.m.



\_\_\_\_\_ a.m./p.m.

$$\begin{array}{r} 70 \\ +4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ -2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ +3 \\ \hline \end{array}$$

telling time story (large)



Write the time. Circle a.m. or p.m.



\_\_\_\_\_ a.m./p.m.

telling time story (large)

Write the time. Circle a.m. or p.m.



telling time story (large)

Write the time. Circle a.m. or p.m.



\_\_\_\_\_ a.m./p.m.



telling time story (large)

Write the time. Circle a.m. or p.m.



\_\_\_\_\_ a.m./p.m.

telling time story (large)