# Eureka Math

## 2nd Grade
## Module 8
## Lesson 16

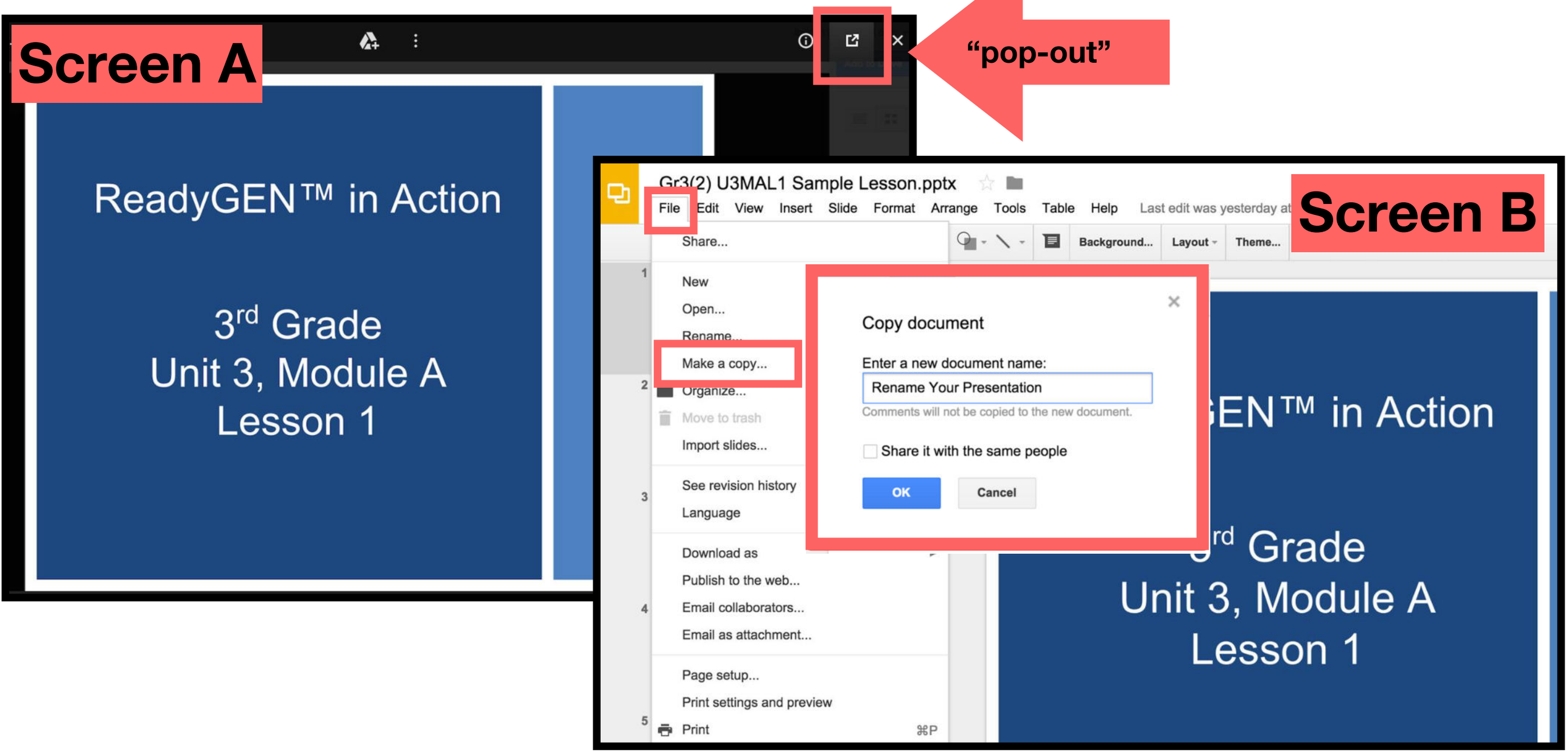
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.

# Customize this Slideshow

## Reflecting your Teaching Style and Learning Needs of Your Students

- ➢ When the Google Slides presentation is opened, it will look like Screen A.
- ➢ Click on the “pop-out” button in the upper right hand corner to change the view.
- ➢ The view now looks like Screen B.
- ➢ Within Google Slides (not Chrome), choose FILE.
- ➢ Choose MAKE A COPY and rename your presentation.
- ➢ Google Slides will open your renamed presentation.
- ➢ It is now editable & housed in MY DRIVE.



# Icons


Read, Draw, Write

Learning Target

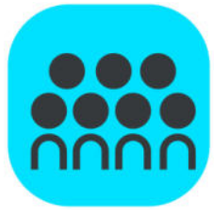
Personal White Board


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

Small Group Time

# Materials Needed:

Materials:
Fluency - Core Fluencies, Personal White board
(& hundreds place value chart/Lesson 3 template)

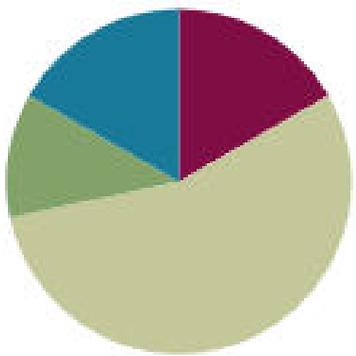
Concept Development:
(T) Demonstration clock
(S) Student clocks, personal white board, 1 piece of chart paper, and a few markers per group

# Lesson 16

Objective: Solve elapsed time problems involving whole hours and a half hour.

**Suggested Lesson Structure**

| | |
|---|---|
| Fluency Practice | (10 minutes) |
| Application Problem | (7 minutes) |
| Concept Development | (33 minutes) |
| Student Debrief | (10 minutes) |
| **Total Time** | **(60 minutes)** |



I can solve elapsed time problems involving whole hours and a half hour.

# Fluency

## Subtraction with Renaming

You solve on your whiteboard with with a place value chart,  while recording the algorithm.

**600-356=**

**406-218=**

**507-269=**

**314-185=**

**672-274=**

**842-296=**

# Fluency

# Core Fluencies

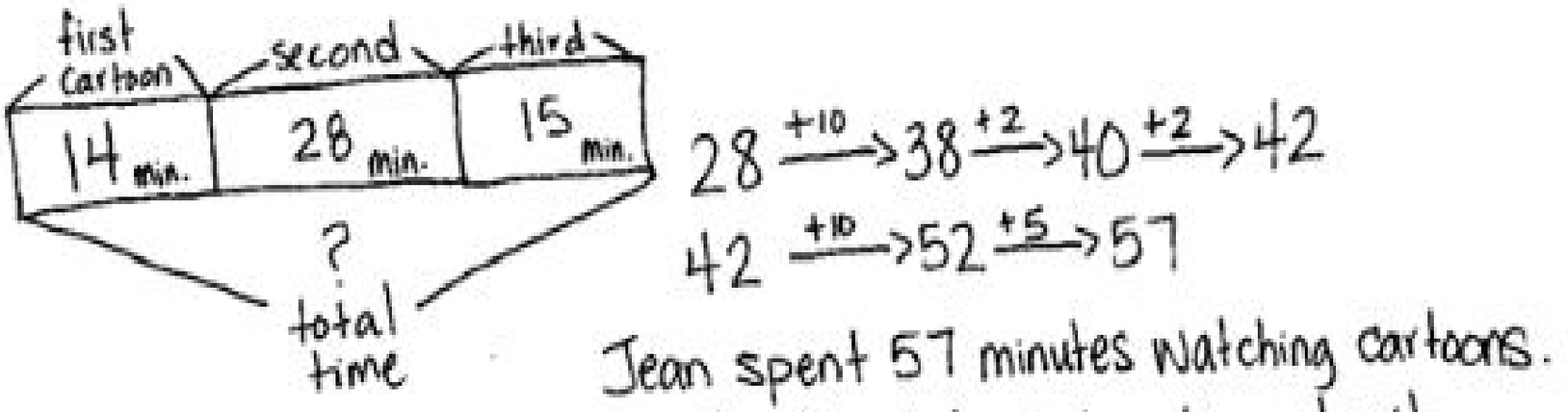


Name _____ Date _____

| | | | |
|---|---|---|---|
| 1. | 10 + 9 = | 21. | 3 + 9 = |
| 2. | 10 + 1 = | 22. | 4 + 8 = |
| 3. | 11 + 2 = | 23. | 6 + 9 = |
| 4. | 13 + 6 = | 24. | 8 + 8 = |
| 6. | 16 + 6 = | 26. | 7 + 6 = |
| 6. | 14 + 3 = | 26. | 6 + 8 = |
| 7. | 13 + 6 = | 27. | 8 + 3 = |

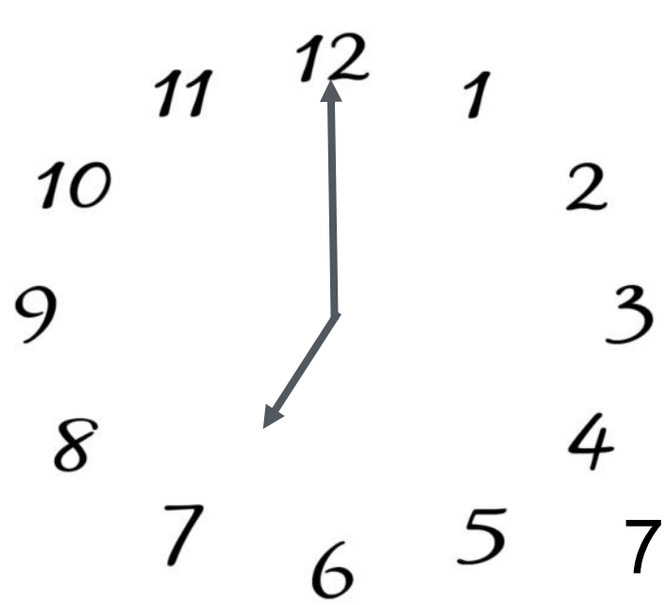
# Application Problem

On Saturdays, Jean may only watch cartoons for one hour. Her first cartoon lasts 14 minutes, and the second lasts 28 minutes. After a 5 minute break, Jean watches a 15 minute cartoon. How much time does Jean spend watching cartoons? Did she break her time limit?

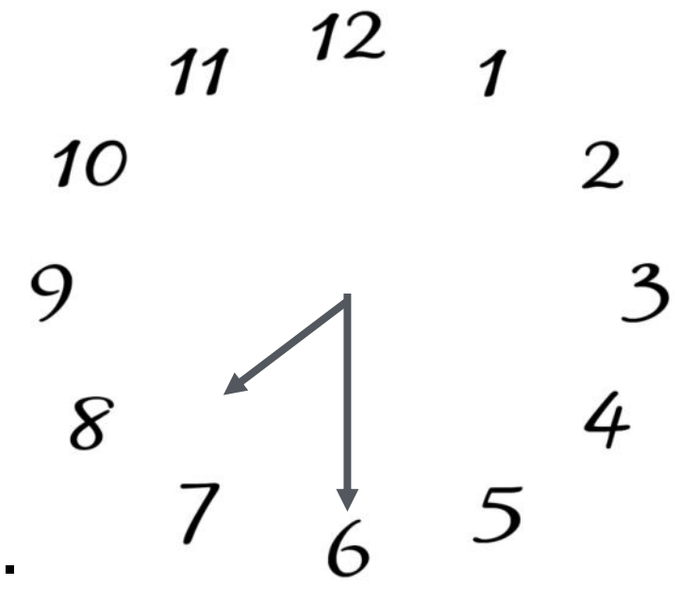


# Concept Development

**Problem 1:Kalpana gets up at 7:00 a.m. She leaves the house at 7:30 a.m. How long does it take her to get ready?**




7:00 a.m.




7:30 a.m.

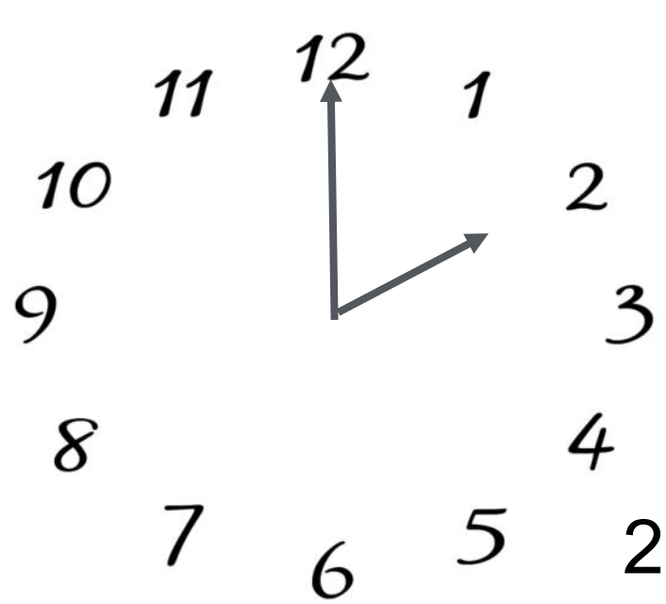
How long does it take Kalpana to get ready?

How did you figure this problem out? Turn and talk.

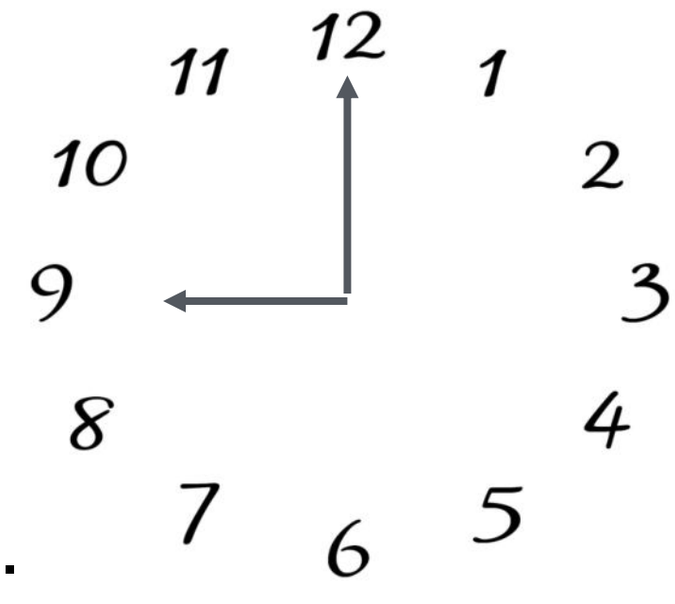
Let’s try another problem.

# Concept Development

**Problem 2:Tony goes bowling on Saturday at 2:00 p.m. He gets home at 9:00 p.m. How long did he stay out?**



2:00 p.m.



9:00 p.m.

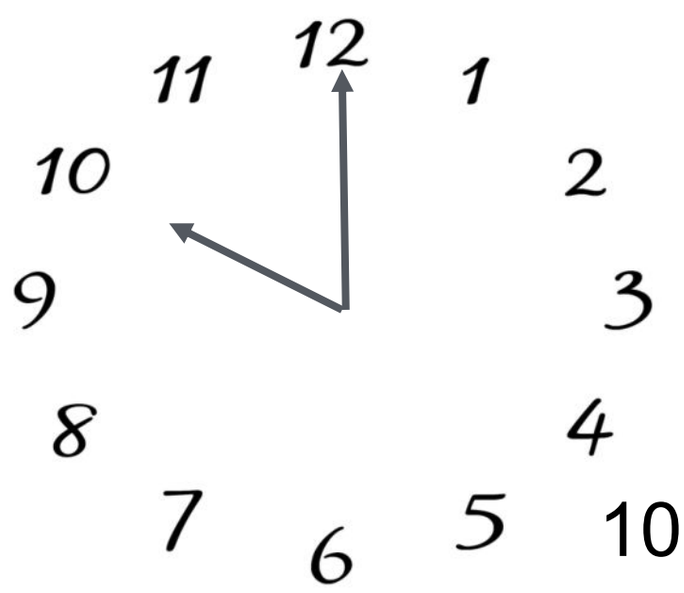
Work with a partner to try to solve this problem.

How long did Tony stay out?

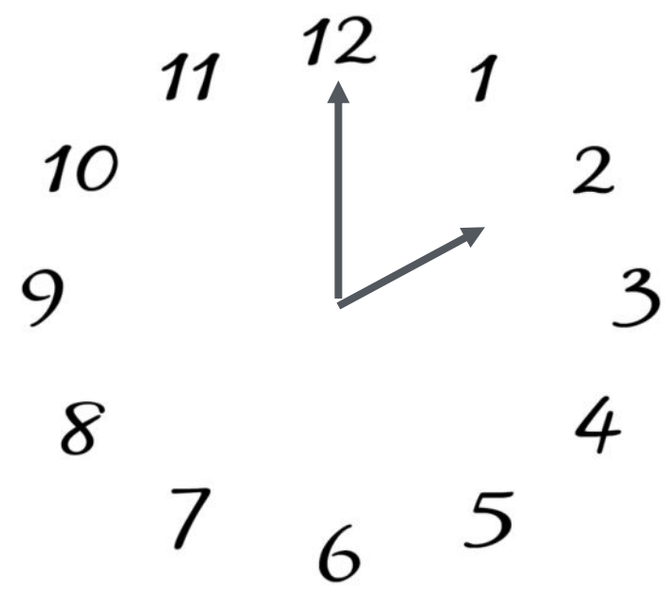
How did you figure that out?

# Concept Development

**Problem 3:Students arrive at the museum at 10:00 a.m. They leave at 2:00 p.m. How long are students at the museum?**




10:00 a.m.




2:00 p.m.

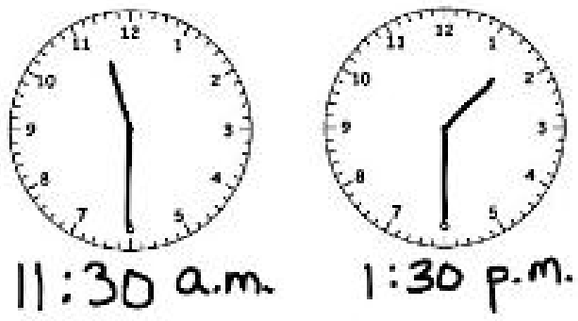
Read the problem and solve with a partner.

How long are students at the museum?

How do you know?

# Concept Development

**Problem 4: A movie starts at 11:30 a.m. It finishes at 1:30 p.m. How long does the movie last?**




Work with a partner to solve this problem.

How did you figure this out?

# Concept Development

**Problem 5 :Beth goes to bed at 8:00 p.m. She wakes up at 3:30 a.m.  to go to the airport.  How much time did she sleep?**

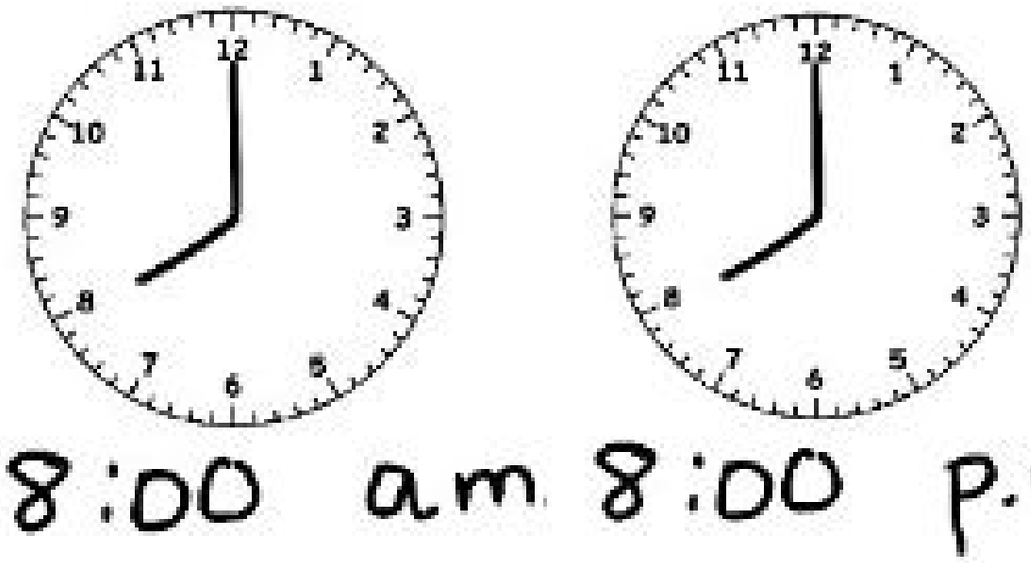
Work with a partner to figure this out. You may want to use the arrow way.

8:00 p.m. $\xrightarrow{+4\text{hr}}$ 12:00 a.m. $\xrightarrow{+3\text{h}30\text{min}}$ 3:30 a.m.

7h 30 min

# Concept Development

**Problem 6 :Draw or show two clocks, one showing 8:00 a.m. and one showing 8:00 p.m.**




Are these clocks showing the same time or two different times?

If these times occur on the same day, how much time has passed between the first time and the second?

# Concept Development

**Draw or show two clocks, one showing 4:30 p.m. and 1:30 p.m.**

How much time as passed between the first clock and the second?

**Draw or show two clocks, one showing 7:00 a.m. and 2:30 a.m.**

How much time as passed between the first clock and the second?

Name _____ Date _____

1. How much time has passed?

   a. 6:30 a.m. → 7:00 a.m. _____

   b. 4:00 p.m. → 9:00 p.m. _____

   c. 11:00 a.m. → 6:00 p.m. _____

   d. 3:30 a.m. → 10:30 a.m. _____

   e. 7:00 p.m. → 1:30 a.m. _____

# Debrief

Review your solutions for the Problem Set

For Problem 1(e), explain to your partner how you figured out how much time passed between 7:00 p.m. and 1:30 a.m. What were you most likely doing during that time?

For Problem 1(h), Jovan argues that the elapsed time is 7 hours. Why is he incorrect? What most likely happened?

For Problem 2(a), if Tracy leaves and comes home on the half hour, why isn't she in school for 8 and a half hours?

For Problem 2(d), what observations can you make about the times Marcus drove on Monday and Tuesday? Does this make solving easier for you?

# Exit Ticket



Name _____ Date _____

How much time has passed?

1. 3:00 p.m. → 11:00 p.m. _____

2. 5:00 a.m. → 12:00 p.m. (noon) _____

3. 9:30 p.m. → 7:30 a.m. _____