Eureka Math

3rd Grade
Module 2
Lesson 4

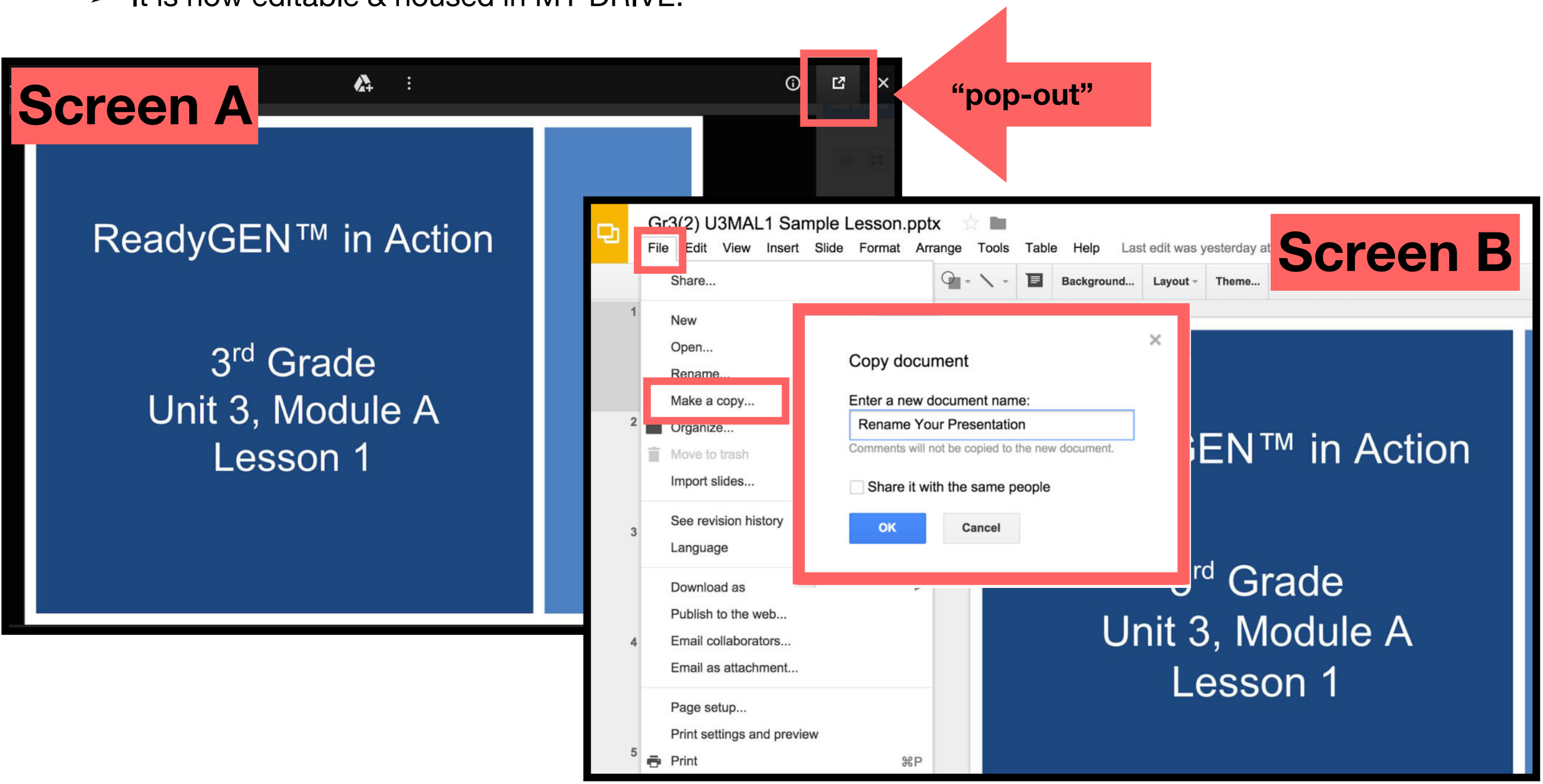
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

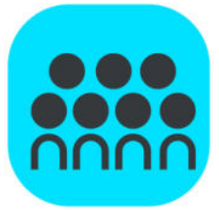
Personal White Board

Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

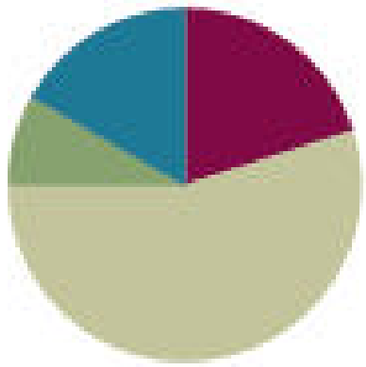
Small Group Time

Lesson 4

Objective: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock.

Group Counting

Count by Sevens to 49.

Say all of the numbers. Watch my fingers to know whether to count forward or backward. A closed hand means stop.

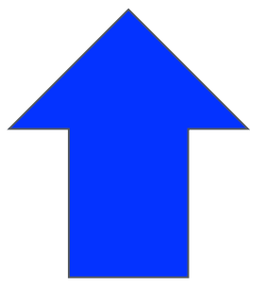
Count forward

Count backward

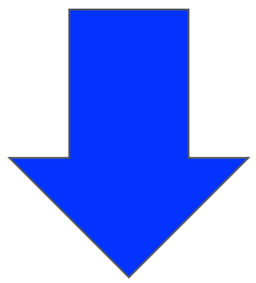
Group Counting

Count by Eights to 56.

Say all of the numbers. Watch my fingers to know whether to count forward or backward. A closed hand means stop.



Count forward

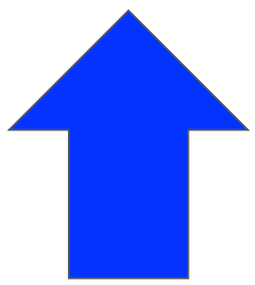


Count backward

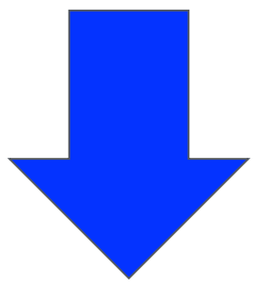
Group Counting

Count by Nines to 63.

Say all of the numbers. Watch my fingers to know whether to count forward or backward. A closed hand means stop.

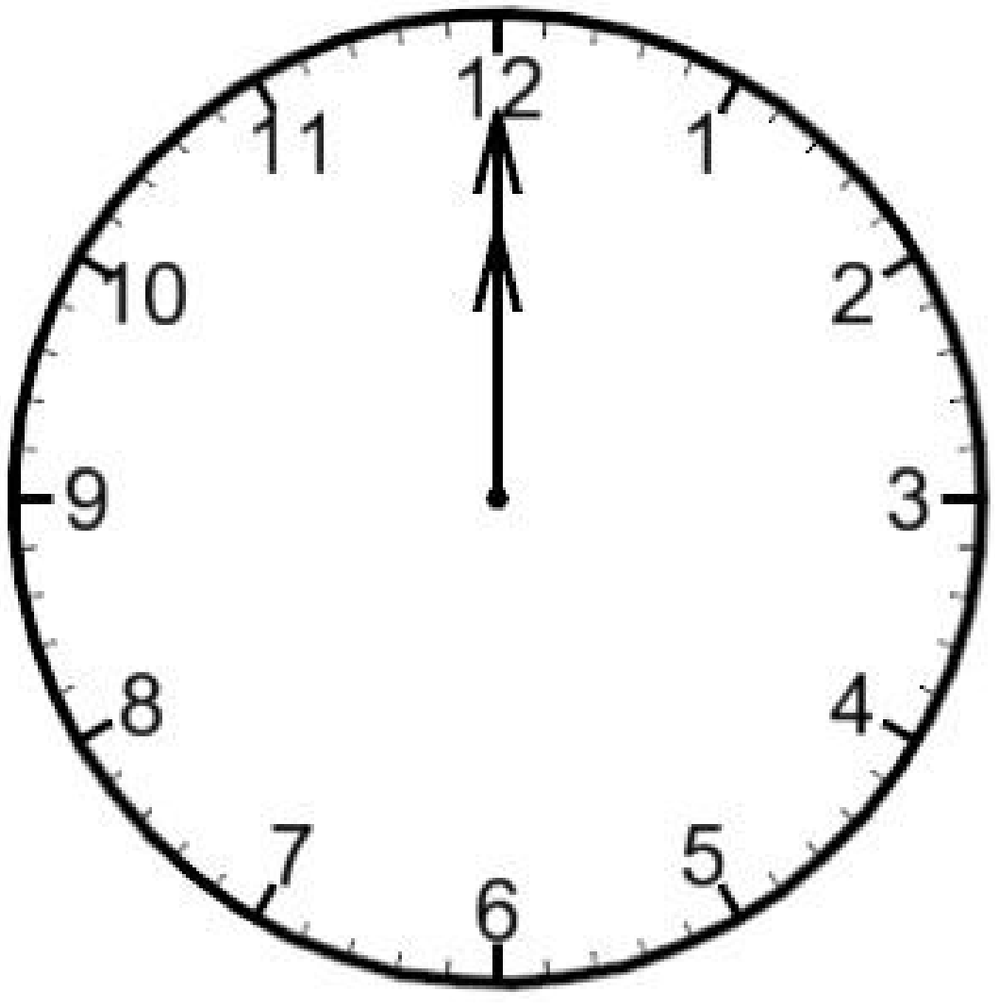


Count forward



Count backward

Telling Time on the Clock

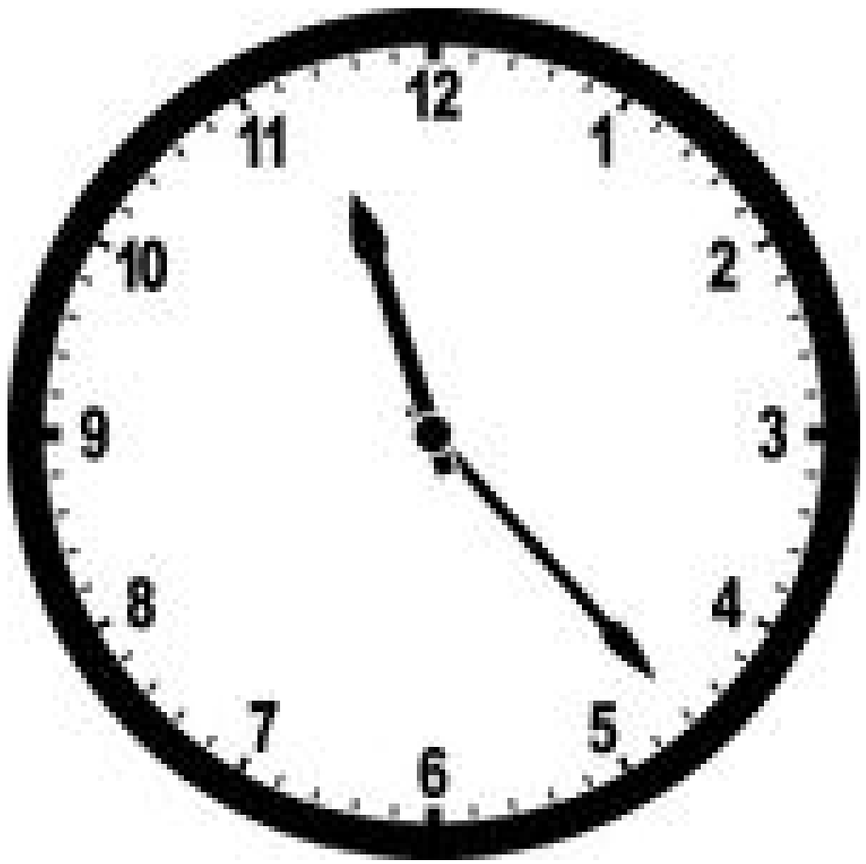


Start at 12 and count by 5 minutes on the clock.

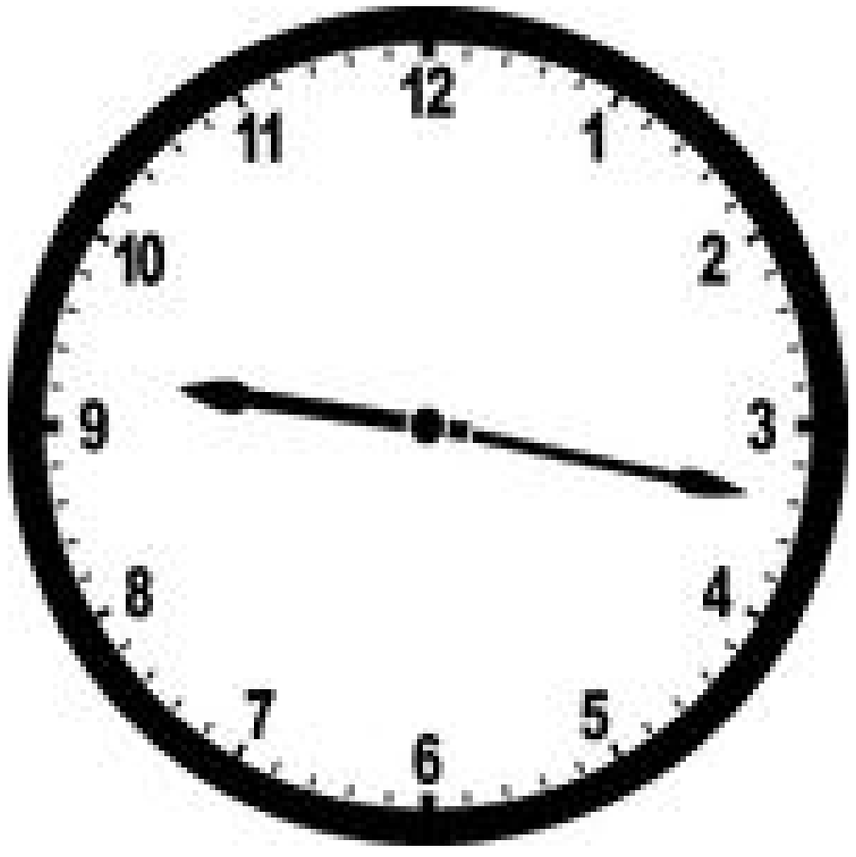
Telling Time on the Clock

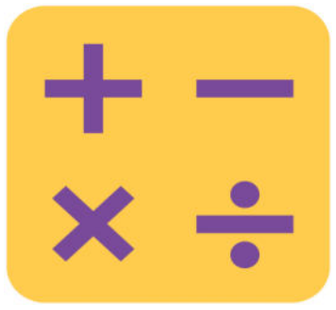
I'll show a time on a clock. Write the time on your personal white board.

Telling Time on the Clock



Telling Time on the Clock

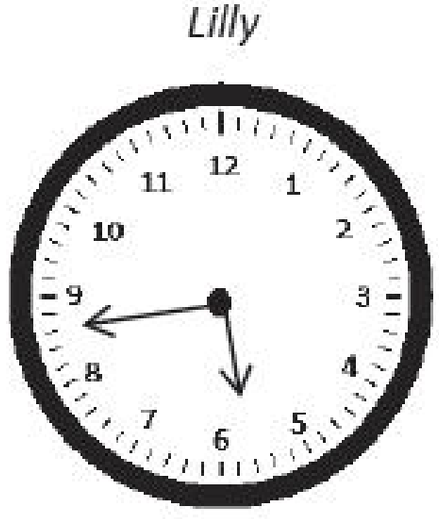




Minute Counting

Count by 5 minutes to 1 hour forward and backward, naming the quarter hour and half hour intervals.

Application Problem



Patrick and Lilly start their chores at 5:00 p.m. The clock shows what time Lilly finishes. The number line shows what time Patrick finishes. Who finishes first? Explain how you know. Solve the problem without drawing a number line. You might want to visualize or use your clock template, draw a tape diagram, use words, number sentences, etc.

RDW

Time Word Problems

Use your ruler to draw a 12-centimeter line on your personal white board. Start at the 0 mark, and make a tick mark at each centimeter up to the number 12. Label the first tick mark 0 and the last tick mark 60. Then, count by fives from 0 to 60 to label each interval, like we did in the last lesson.

Time Word Problems

Look back at your work on today's Application Problem. We know that Lilly finished after Patrick.

Let's use a number line to figure out how many more minutes than Patrick Lilly took to finish.

Slip the number line Template into your personal white board.

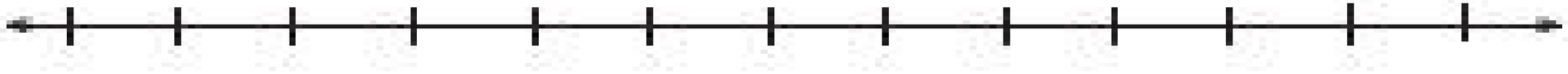
Time Word Problems

Label the first tick mark 0 and the last tick mark 60.

Label the hours and 5-minute intervals.

Plot the times 5:31 p.m. and 5:43 p.m.

Time Word Problems



We could count by ones from 5:31 to 5:43. Instead, discuss with a partner a more efficient way to find the difference between Patrick and Lilly's times.

Work with a partner to find the difference between Patrick's and Lilly's times.

How many more minutes than Patrick did it take Lilly to finish her chores?

Time Word Problems

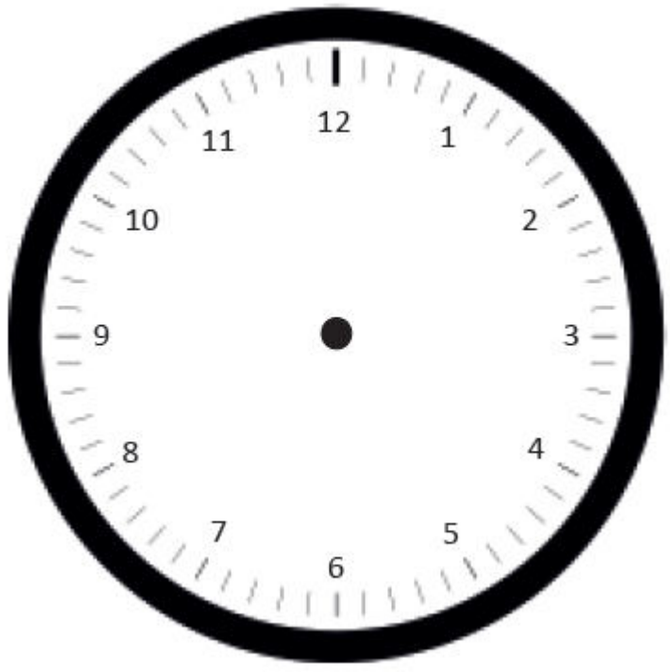
What strategy did you use to solve this problem?

Time Word Problems

<u>Note to teacher….</u>
Repeat the process with other time interval word problems, varying the unknown as suggested below.
Result unknown: *Start time and minutes elapsed known, end time unknown. (We started math at 10:15 a.m. We worked for 23 minutes. What time was it when we ended?)*
Change unknown: *Start time and end time known,minutes elapsed unknown. (Leslie starts reading at 11:24 a.m. She finishes reading at 11:57 a.m. How many minutes does she read?)*
Start unknown: *End time and minutes elapsed known, start time unknown. (Joe finishes his homework at 5:48 p.m. He worked for 32 minutes. What time did he start his homework?)*

Time Word Problems

It took me 42 minutes to cook dinner last night. I finished cooking at 5:56 p.m. What time did I start?

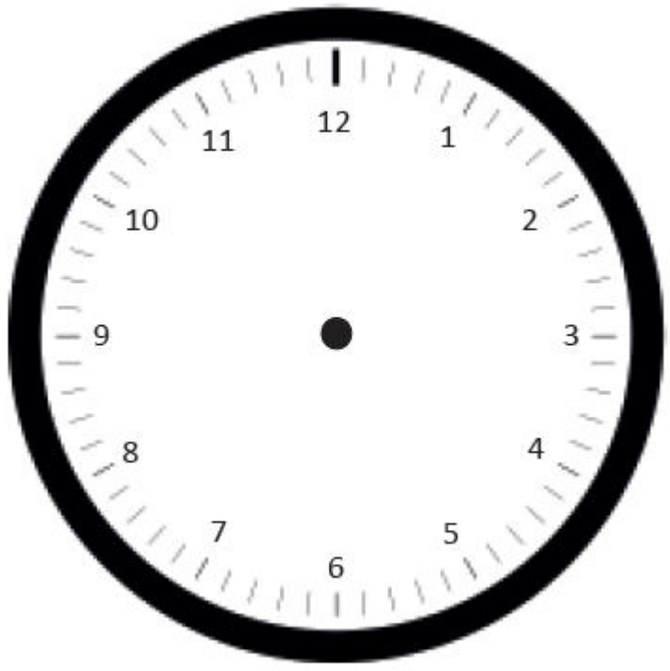


Let’s use a clock to solve this problem. Put the clock template in your board.

Work with your partner to draw the hands on your clock to show 5:56 p.m.

Time Word Problems

It took me 42 minutes to cook dinner last night. I finished cooking at 5:56 p.m. What time did I start?



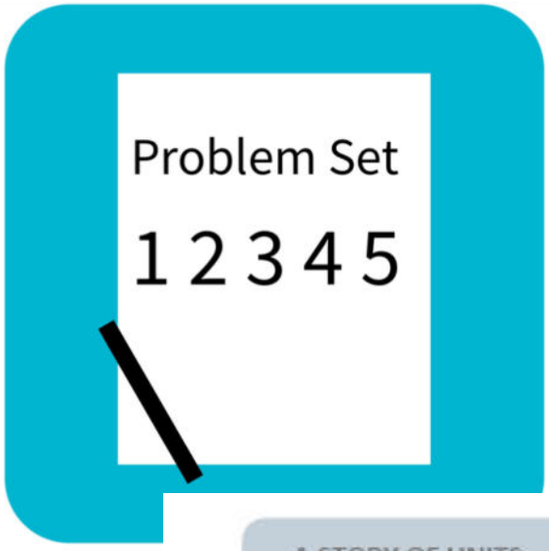
Talk with your partner, will you count backward or forward on the clock to solve this problem?

Use an efficient strategy to count back 42 minutes. Write the start time on your personal white board, and as you wait for others, record your strategy.

Time Word Problems

<u>Note to teacher….</u>
Repeat the process with other time interval word problems, varying the unknown as suggested below.

Result unknown: *Start time and minutes elapsed known, end time unknown. (Henry starts riding his bike at 3:12 p.m. He rides for 36 minutes. What time does he stop riding his bike?)*
Change unknown: *Start time and end time known, minutes elapsed unknown. (I start exercising at 7:12 a.m. I finish exercising at 7:53 a.m. How many minutes do I exercise?)*
Start unknown: *End time and minutes elapsed known, start time unknown. (Cassie works on her art project for 37 minutes. She finishes working at 1:48 p.m. What time did she start working?)*



Problem Set

Name _____ Date _____

Use a number line to answer Problems 1 through 5.

1. Cole starts reading at 6:23 p.m. He stops at 6:49 p.m. How many minutes does Cole read?

Cole reads for _____ minutes.

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2. Natalie finishes piano practice at 2:45 p.m. after practicing for 37 minutes. What time did Natalie's practice start?

Natalie's practice started at _____ p.m.

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3. Genevieve works on her scrapbook from 11:27 a.m. to 11:58 a.m. How many minutes does she work on her scrapbook?

Debrief

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

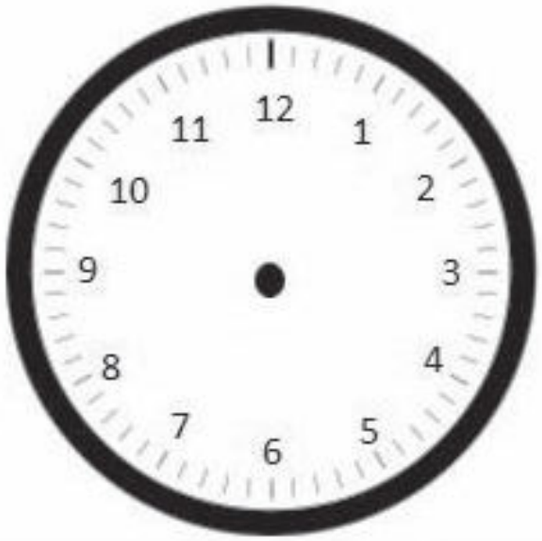
- How are Problems 1 and 2 different? How did it affect the way you solved each problem?
- Did you count forward or backward to solve Problem 3? How did you decide which strategy to use?
- Discuss with a partner your strategy for solving Problem 6. What other counting strategies could you use with the clocks to get the same answer?
- Is 11:58 a.m. a reasonable answer for Problem 7? Why or why not?
- Explain to your partner how you solved Problem 8. How might you solve it without using a number line or a clock?
- How did we use counting as a strategy to problem solve today?

Exit Ticket

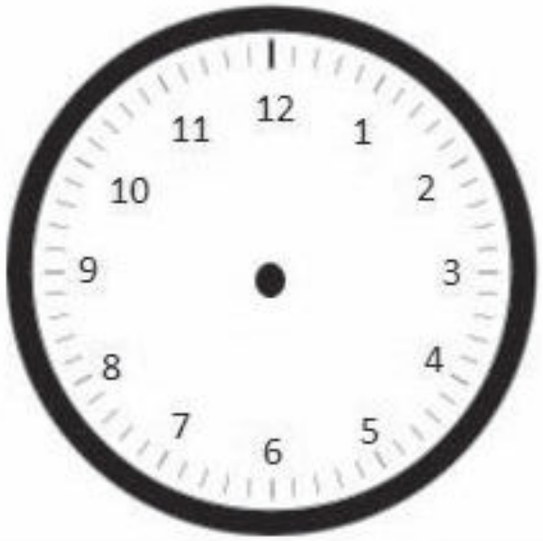
Name _____ Date _____

Independent reading time starts at 1:34 p.m. It ends at 1:56 p.m.

1. Draw the start time on the clock below.



2. Draw the end time on the clock below.



3. How many minutes does independent reading time last?