

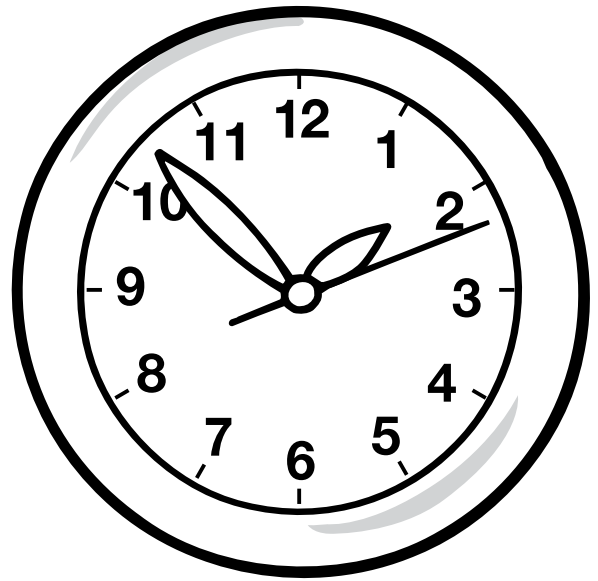
Elapsed Time

3rd–5th Grade

Objectives

CCSS Math: Measurement & Data

- 3.MD.A.1: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
- 4.MD.A.2: Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.



Materials Needed

- Lakeshore Magnetic Teaching Clock [JJ486]
- Lakeshore Student Clocks - Set of 12 [JD642]
- “Elapsed Time Word Problems” activity page
- Elapsed time worksheet

Products with item numbers are available at LakeshoreLearning.com.

Introduction

1. Ask a student what time school starts. Write this time on the board under the heading “Start Time.” Then ask another student what time school ends. Write this time next to the start time under the heading “End Time.”
2. Ask, “From the time school starts to the time it ends, how much time elapses, or passes?” (Invite students to respond and explain their reasoning and calculations.)
3. Hold up the teaching clock and demonstrate how to set the clock at the start time and count the hours and minutes until the end time. (Hint: Move the hour hand first and have students count the hours aloud with you. Then move the minute hand and have them count the minutes.)
4. Explain to students that you are going to teach them some strategies to help them calculate elapsed time.

Procedure

1. Give each student a clock.
2. Say, “I went to the mall at 10:00 a.m. I came home at 12:00 p.m. How long was I at the mall?”
3. Have students point the hour hand on their clocks to 10 and the minute hand to 12 to show 10:00 a.m., the start time.
4. Prompt students to count aloud as they move the minute hand in two full circles clockwise, so that the hour hand moves from 10 to 11 to 12, to show 12:00: “One hour, two hours.” Then say, “Our clocks now show the end time, 12:00 p.m. How many hours did we count?” (two)
5. Try an example using hours and minutes, such as, “Ellen began doing her homework at 3:30 p.m. She finished at 5:00 p.m. How long did it take Ellen to complete her homework?”

6. Have students show 3:30 on their clocks. Then ask them to count aloud as they move the minute hand in one full clockwise rotation: "One hour." Then ask, "What time do our clocks show now?" (4:30) Point out that moving the minute hand another full clockwise rotation would make their clocks show 5:30, which is later than the time Ellen finished her homework. Instead, ask students to look at the minutes. "How many minutes will it take to get from 4:30 to 5:00?" (30) Slowly move the minute hand up from 6 to 12 and confirm, "It took Ellen one hour and 30 minutes to complete her homework."
7. Demonstrate with a few more examples, encouraging students to count the full rotations and calculate any remaining minutes.

Guided Practice

1. Give each student a copy of the elapsed time worksheet.
2. Provide another example problem involving elapsed time. As students solve the problem, have them draw hour and minute hands on the first clock to show a start time and on the second clock to show an end time. Additionally, they can write the corresponding digital times beneath the clocks.
3. Encourage students to use the number line below the clocks to count hours and minutes in order to calculate elapsed time. Point out that each mark between whole numbers (hours) represents one quarter hour (15 minutes), or :15, :30, and :45, respectively. Students should circle the start and end times on the number line and count the number of hours and minutes between the two.
4. If desired, give students one or two more examples to solve using their elapsed time worksheets. Have students erase their markings in order to reuse their worksheets, or provide additional copies as needed.

Independent Practice

1. Give each student a copy of the "Elapsed Time Word Problems" activity page.
2. Have students read the problems and use their clocks and/or elapsed time worksheets to help solve them.

Elapsed Time Word Problems

1

Molly and her friend Denise go to see a movie at 5:00. If the movie is 2 hours long, what time does it end?

Beginning Time	Ending Time	Elapsed Time

2

At Mayflower Elementary School, lunch is 30 minutes long. If lunch starts at 12:30, what time does it end?

Beginning Time	Ending Time	Elapsed Time

3

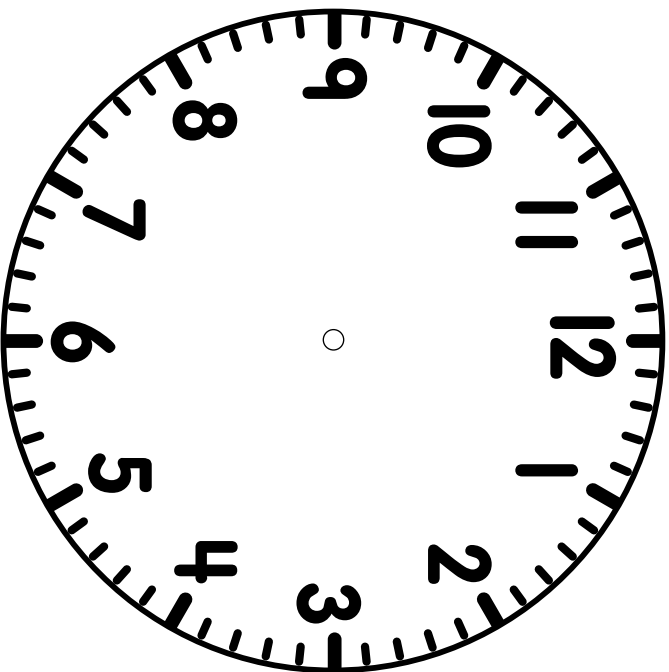
It took $1\frac{1}{2}$ hours for Max and his dad to drive to the mountains. If they left at 3:30, what time did they get there?

Beginning Time	Ending Time	Elapsed Time

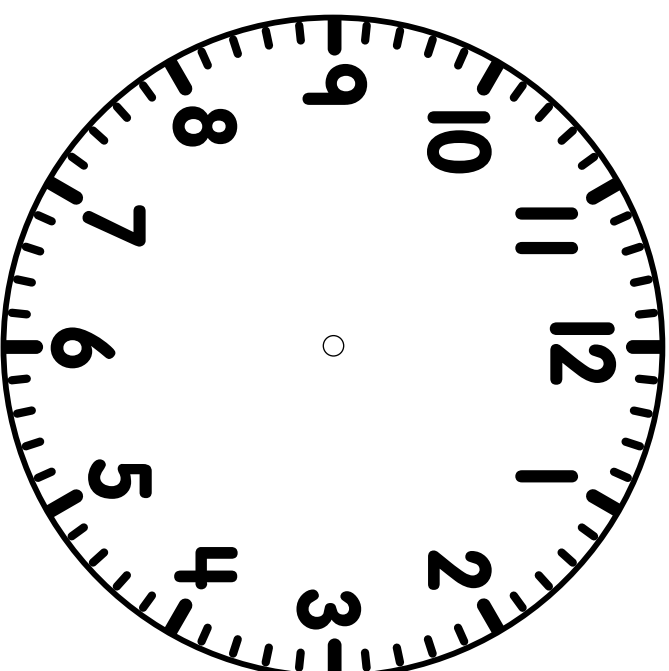
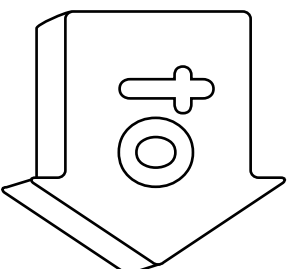
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The school play starts at 2:30. If it lasts 2 hours and 30 minutes, what time will it be over?

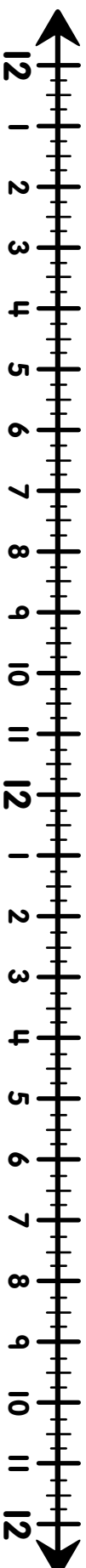
Beginning Time	Ending Time	Elapsed Time



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_____ hours _____ minutes