2nd Grade Math: Elapsed Time

Understanding Elapsed Time

Elapsed time is the amount of time that passes from the start of an event to the end. In this lesson, we will learn how to find elapsed time by looking at clocks and solving problems where you need to figure out how much time has gone by.

Key Concepts

1. **Start Time**:
   - The time an event begins.
   - Example: If your soccer game starts at 3:00, then 3:00 is your start time.
2. **End Time**:
   - The time an event finishes.
   - Example: If your soccer game ends at 4:30, then 4:30 is your end time.
3. **Elapsed Time**:
   - The time that passes from the start to the end of an event.
   - Example: If the soccer game starts at 3:00 and ends at 4:30, the elapsed time is 1 hour and 30 minutes.

Finding Elapsed Time

There are two main ways to find elapsed time:

1. **Using a number line or clock**:
   - You can count the hours and minutes that pass between the start and end times.
2. **Counting by hours and minutes**:
   - Start by counting full hours from the start time, then count the remaining minutes.

Steps to Solve Elapsed Time Problems

1. **Step 1: Find the start time.**
   - Look at the time the event started.
2. **Step 2: Find the end time.**
   - Look at the time the event ended.
3. **Step 3: Count the time between.**
   - Start by counting the hours that pass from the start time to the next hour.
   - Then, count the minutes that pass from the hour to the end time.

Example Problems

1. **Problem 1**:
   - **Start Time**: 2:00 P.M.
   - **End Time**: 4:00 P.M.
   - **Elapsed Time**: 2 hours.

- o **Solution**: From 2:00 to 4:00 is 2 hours.
2. **Problem 2**:
   - o **Start Time**: 1:30 P.M.
   - o **End Time**: 2:15 P.M.
   - o **Elapsed Time**: 45 minutes.
   - o **Solution**: From 1:30 to 2:00 is 30 minutes. From 2:00 to 2:15 is 15 more minutes. 30 + 15 = 45 minutes.
3. **Problem 3**:
   - o **Start Time**: 10:15 A.M.
   - o **End Time**: 12:00 P.M.
   - o **Elapsed Time**: 1 hour and 45 minutes.
   - o **Solution**: From 10:15 to 11:00 is 45 minutes. From 11:00 to 12:00 is 1 hour. Total elapsed time is 1 hour and 45 minutes.

Practice Activities

1. **Using a Clock**:
   - o Draw clock faces showing a start and end time. Ask students to count the time that passed.
   - o Example: Start time 3:00, end time 4:30. Elapsed time = 1 hour and 30 minutes.
2. **Time Word Problems**:
   - o Give students word problems where they need to calculate the elapsed time.
   - o Example: "You start playing a video game at 2:00 and stop at 5:00. How long did you play?"
3. **Time Line Activity**:
   - o Use a number line marked with hours and minutes. Students can count the time intervals to find the elapsed time between two given points.

Practice Questions

1. **Question 1**: Your class starts at 9:00 A.M. and ends at 10:30 A.M. How much time has passed?
   - o **Solution**: 1 hour and 30 minutes.
2. **Question 2**: You start your homework at 5:15 P.M. and finish at 6:00 P.M. How long did it take?
   - o **Solution**: 45 minutes.
3. **Question 3**: A movie starts at 7:00 P.M. and ends at 8:45 P.M. How long is the movie?
   - o **Solution**: 1 hour and 45 minutes.

Conclusion

Understanding and calculating elapsed time helps students keep track of how much time they spend on different activities. By practicing elapsed time problems with real-world examples, students will be able to determine how much time passes between two events easily!