Determining the Value

Teacher Guide

Duration: 30–45 minutes

Standards for Mathematics

MA.1.2.E
Use place value to compare whole numbers up to 120 using comparative language.

MA.1.2.G
Represent the comparison of two numbers to 100 using the symbols >, <, or =.

Focus Strategy

Shoulder Partners: Students lean and talk quietly with the person sitting next to them. Shoulder Partner can be used literally to just talk to the people sitting on either side, or for slightly larger groups of 3-4 with everyone's shoulders "touching" (this promotes the ability to speak softly—in sort of a huddle).

Learning Outcomes

- Demonstrate understanding that a two-digit number represents amounts of Tens and Ones.
- Determine the value of each digit in a two-digit number.
- Compare two-digit numbers using the symbols for greater than, less than, and equal.

Key Vocabulary

- Compare
- Equal to
- Greater than
- Less than
- Ones
- Place value
- Tens

Materials

- Place Value Blackout cards (1 card per student)
- Sets of 10 counters (1 set per student)
- 3 signs, one each of the <, >, and = symbols

Activity Preparation

No additional preparation needed

Procedure

Note to the Teacher: This variation of the Place Value Blackout game from the Place Value Blackout activity uses the same cards and counters. Instead of working in groups of four, students work independently and cards can be distributed randomly. In this version of the game, you will call out a two-digit number but will not draw the numbers from bags or show students the numbers. Students will listen carefully, write the number in their math booklet, and cover it on their Place Value Blackout card with a counter if it is there. This activity gives students independent practice with place value.

***TEACHER SAY**: We've played a game called Place Value Blackout. I called out the number of Tens and Ones in a number and you looked for those numbers on your Place Value Blackout card. if you had both numbers, you put counters on top of them. The first one who had all their numbers covered said "Blackout" and won the game. Today we are going to play again, but this time you will play on your own. You will not work with your group today.*

TEACHER DO: Hand out Place Value Blackout cards and sets of counters to students.

***TEACHER SAY**: Each of you has a Place Value Blackout card and some counters. Let's get out our math booklets and turn to the page for Determining the Value, Part 1.*

STUDENTS DO: Take out math booklet and turn to the page for Determining the Value, Part 1.

***TEACHER SAY**: I am going to say a number. I want you to write the number in your math booklet. Let's practice with 32. I write it like this.*

TEACHER DO: Write 32 on the board, pointing out the 3 Tens and 2 Ones.

***TEACHER SAY**: Next, you will figure out what the value of each digit in that number. We know that 3 is in the Tens place, so it is worth 3 Tens. 3 Tens is 30. The 2 is in the Ones place, so it is worth 2 Ones, or 2.*

TEACHER DO: Write 30 + 2 on the board.

***TEACHER SAY**: Copy what I have written on the board into your math booklet.*

STUDENTS DO: Copy the teacher's example into math booklets.

***TEACHER SAY**: Now, look for 30 and 2 on your Place Value Blackout card. if you have both 30 and 2, you may cover them with counters. If you only have 30 or only have 2, you may not cover any numbers. When you have all of your numbers covered, stand up and say, "Blackout." Do you have any questions?*

STUDENTS DO: Raise hands to ask questions, as needed.

TEACHER DO: Call out numbers (Examples: 18, 76, 57, 92, 41, 29, 68). Write them on the board as you call them. Walk around the room during the game to assist as needed.

STUDENTS DO: Listen for the numbers. Write the numbers in their math booklets. Write the Tens and Ones for each number in their math booklets. Put a counter on the Place Value Blackout card if they have both numbers. When all the numbers on the card are covered, say "Blackout."

TEACHER DO: Continue until Blackout is called. Check the numbers with your list to be sure the Blackout is correct. If they are playing correctly, one student from each group should win at the same time.

***TEACHER SAY**: That was a fun way to practice place value. leave your Place Value Blackout cards and counters on the corner of your desk. I will come by and collect all of the materials.*

STUDENTS DO: Place materials on desk so they may be collected by the teacher.

***TEACHER SAY**: Please open your math booklets again to the page for Determining the Value, Part 2.*

STUDENTS DO: Take out math booklet and pencil and turn to the page for Determining the Value, Part 2.

***TEACHER SAY**: Think of two different two-digit numbers. Write the two two-digit numbers in your math booklets next to each other. Leave a little space between them.*

STUDENTS DO: Think of two two-digit numbers. Write the two numbers in their math booklets.

***TEACHER SAY**: Swap math booklets with your Shoulder Partner.*

STUDENTS DO: Swap math booklets with Shoulder Partners.

***TEACHER SAY**: Look at the numbers your Shoulder Partner wrote in their math booklet. Write the symbol for greater than, less than, or equal to between the two numbers.*

STUDENTS DO: Write >, <, or = between the numbers in their partner's math booklet.

***TEACHER SAY**: When you have finished, give the math booklet back to your Shoulder Partner. Discuss your answers together to see if they are correct.*

STUDENTS DO: Give math booklets back and discuss with their Shoulder Partner if they are correct.

TEACHER DO: Repeat if time allows. At the end of the activity, collect students' math booklets to review their work.

***TEACHER SAY**: How does place value help you figure out which number is greater than or less than or if two numbers are equal to each other? Raise your hand if you have an idea to share.*

STUDENTS DO: Raise hands to answer. Share their thinking about how they can use place value to determine greater than/less than relationships.

TEACHER DO: Listen to students' thinking about how to use place value to compare numbers. Clarify misconceptions, as needed. Confirm and praise effective strategies to help other students learn.