

Mathematics: Number and Operations in Base Ten

1.NBT.2

Cluster Heading: Understand place value

Content Standard: Understand that the two digits of a two-digit number represent amounts of tens and ones.

Practice Standard: MP6 Attend to precision, MP7 Look for and make use of structure

Problem/Task Suggestions

Numbers, Numbers

Each student receives 3 number cards.

Choose 2 cards to make the largest 2-digit number.



Now, choose 2 cards to make the smallest 2-digit number.

Record your answer and explain to a partner how you found your answer.

Differentiation:

Supports:

- Provide a recording sheet with 2 blank rectangles for the largest and smallest 2-digit number.
- Provide a number grid.

Extensions:

- Create a word problem that uses the two 2-digit numbers.
- How would have a card that says zero change your answer? Could you get a bigger number or smaller number with a zero and using 2 cards?

Solutions:

- Largest number: 97, smallest number: 7.
- In order to make the largest number, the largest numeral has to go in the tens place and the next largest in the ones place.
- In order to make the smallest number, the smallest numeral has to go in the tens place and the next smallest in the ones place.

Formative Assessment Suggestions

Observation of Students

- Do they recognize place value?
- Can they explain their strategy?
- Do they understand what the problem is asking them to do?
- Can they read the number out loud?

Questions to Guide Student Thinking:

- What is a wrong answer? How do you know it is wrong?
- Can you read the number out loud?
- What part of the number can you change to make it greater/smaller?

Misconceptions

Students may:

- Reverse the tens/ones.
- Use numbers not given.
- Not use all 3 numbers (use only the 2 numbers from the largest number to make the smallest number).

Vocabulary Considerations

Greater, greatest, smaller, smallest, place value, tens, ones
Larger/largest

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