Numeral Recognition

Student Probe
Ask students to randomly identify numerals. If they cannot, continue with this lesson.

Lesson Description
Students must recognize numerals in order to learn to write and use mathematics.

Rationale
Reading and writing numerals is similar to learning the letters of the alphabet. It has nothing to do with number sense but it is critical for communication. Repetitious practice of different activities and discussion is the key for success.

Preparation
Every child should have a calculator. Simple basic four function calculators are best.

Lesson

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<th>The teacher says or does...</th>
<th>Expect students to say or do...</th>
<th>If students do not, then the teacher says or does...</th>
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<td>1. “Turn on your calculator. Press the clear button.”</td>
<td>Turn on the calculator. Press the clear button.</td>
<td>Show the students how to turn on the calculator and press the clear button. Have them practice until they are successful.</td>
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<td>2. Talk to the students about the calculator. Say, “What numerals do you see on the calculator?”</td>
<td>Students might randomly say, “I see 5, 3, 4, etc.” Another student might say them in order by rote.</td>
<td>Go back and review using the lesson for rote counting.</td>
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At a Glance
What: Numeral Recognition
Common Core Standards: CC.K.CC.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects)
Mathematical Practices: Attend to precision.
Who: Students who cannot identify numerals easily and flexibly to 10.
Grade Level: Kindergarten
Prerequisite Vocabulary: Clear key
Prerequisite Skills: Rote counting to 10, one-to-one correspondence, pushing keys on a calculator, clear key, on/off, and numbers
Delivery Format: 1 or more students
Lesson Length: 15 minutes
Materials, Resources, Technology: Four function calculators
Student Worksheets: None
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| 3. Tell students, “When I say a number, press that key on the calculator.” Call out a number randomly, for example, “4”.

Student pushes the correct key showing the numeral 4.
Student does not know which key to push. | Have them use a number line or the numbers to 10 from the rote counting lesson to figure out what the numeral looks like. Students start with “1” and count “2, 3, 4.” Ask the students, “Can you find that same numeral on the calculator?” Patiently wait for the students to find the calculator key that shows the numeral 4. |

4. Continue calling out random numbers to 9 until the students are fluent with pressing these numeral keys on the calculator. Be sure to have students independently use a number line or number chart to figure out the correct numeral on their own if they are uncertain.

Student will accurately push the correct keys.
Student will push the first one or two keys correctly. | Have students repeat back the numbers they are to push. |

5. Next, begin calling out two or three numbers in succession. For example, call “two, six, eight”. Students should press the complete string of numbers.

Student will accurately push the correct keys.
Student will push the first one or two keys correctly. | |

6. Continue to work with students until they master the ability to push the correct keys in order.
**Teacher Notes**

It is very important to make students responsible for figuring out the correct numeral independently. Have number charts or number lines available to help students figure it out. Teach them how to use this tool by asking, “How could I use the number chart to help me figure out which numeral represents “9”? Students generally start with the number one and count until they reach the corresponding numeral. One-to-one correspondence is necessary to use this tool.

**Variations**

1. For larger numbers, have students use a 100s chart as a reference to locate numbers they have trouble recognizing or writing. Some students will find the number by counting beginning at “1” and then counting until they find the numeral they need. Others will locate a numeral they know further down on the chart (for instance 20) and then count from there to find the numeral they need.

2. Have students match numerals with all corresponding dot cards.

   ![dot cards](image)

3. Have students match numerals with all the corresponding dominoes.

4. Have students build the numbers one to ten using interlocking cubes, then match the corresponding numeral card to the correct number of cubes.

   ![cubes](image)

5. Bang on a drum or clap your hands a certain number of times. The student holds up the corresponding numeral.

6. Hold up a numeral. The student holds up the corresponding dot card or 10 frame.
7. Play a game of concentration. Half the cards are numerals and half are the corresponding dot cards. Students take turns turning over two cards to find a match.

Formative Assessment
Observe students during the lessons to determine their progress. Add variation activities as needed until students master recognition of numerals.

References