Double-Digit Subtraction

Purpose

Students will subtract double-digit numbers (less than 100) by relating the subtraction to the numbers' digits.

Materials

For the teacher: chalk, chalkboard
For each student: set of cards from Black Line Master (BLM) *0–9 Cards*, 9 cubes

Activity

A. Pre-Activity Preparation

1. Copy the BLM *0–9 Cards* onto heavy stock paper or regular weight paper that can be laminated.
2. Create enough so that there are two sets of cards for every two students.

B. Introduction

1. Write a simple single-digit subtraction problem on the board (e.g., 7 – 3).
2. Have the students solve the problem by mental arithmetic or using the cubes.
3. Ask students to explain how they arrived at the solution.
4. Write another simple single-digit subtraction problem on the board (e.g., 8 – 5) and repeat the same procedure with the students.
5. By combining the two subtraction problems, write a double-digit subtraction problem on the board (in the examples above, the problem would be 78 – 35).
6. Ask the class if anyone knows the answer to the double-digit problem.
7. If a student answers correctly, have him/her explain the solution to the class. If students do not know the answer, move to the next step.
8. Either as a method of checking the answer or to lead students to understand double-digit subtraction, make tally marks on the chalk board to represent the double-digit subtraction problem.

(continued)

MEETING INDIVIDUAL NEEDS

Give students experiencing difficulties enough cubes for them to solve or check their double-digit problems with the manipulatives. Explain to them that this method works because the digits represent tens and ones. Help them represent the problem by first grouping the cubes into tens and ones for each double-digit number.

INCORPORATING TECHNOLOGY

Use a subtraction software program to help students develop a better understanding of double-digit subtraction.

Standards Links
2.1.3, 2.6.2, 2.6.4

Activity (continued)

9. Have the students count with you as you make the tally marks for the larger number in the problem and count with you to mark off (or erase) the tallies for the smaller number in the problem. Also have students count with you the remaining tally marks to find the solution to the problem.

C. Partner Activity

1. Divide the class into pairs.
2. Give each pair of students two sets of the BLM *0–9 Cards*.
3. Instruct each pair of students to pull four cards from the deck.
4. Have students individually create two single-digit subtraction problems and one double-digit subtraction problem from the cards drawn. Have students use the cubes to compute answers.
5. Have partners compare their problems and answers.
6. Repeat the activity several times by pulling four new cards from the deck.

D. Discussion

1. Discuss with the class how they arrived at their answers.
2. Ask if students in the same group ever created different subtraction problems from the same four cards drawn.

Questions for Review

Basic Concepts and Processes

During the activity, discuss the following questions with your students to gauge their understanding of the Standard Indicator:

📖 Did you get the same answer for the subtraction problem as your partner? Why or why not?

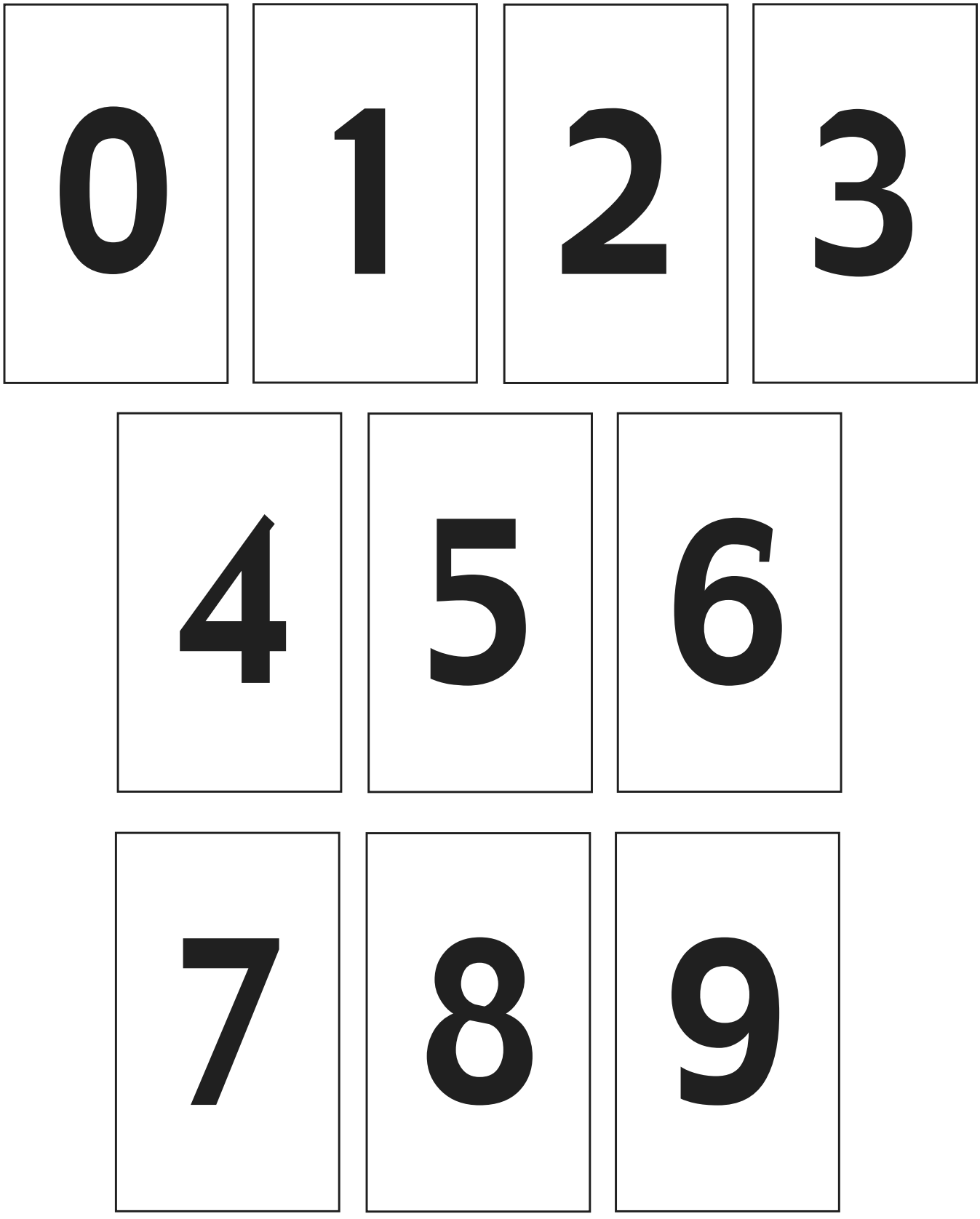
💡 If they aren't the same, how did you decide whose was correct?

📖 What are the correct answers to the single-digit problems you created?

💡 How did you use those answers to find the answer to the double-digit problem?

💡 Why do you think this method works in solving double-digit problems?

0-9 Cards



0-9 Cards

Teacher Directions

Copy the BLM *0–9 Cards* and cut out cards as described in the activity.

Answer Key

Not applicable.