

# Lesson 9: Solve Number Riddles

## Standards Alignments

Addressing 1.NBT.B, 1.NBT.B.3, 1.NBT.C

### Teacher-facing Learning Goals

- Apply place value understanding to solve number riddles.

### Student-facing Learning Goals

- Let's solve number riddles.

## Lesson Purpose

The purpose of this lesson is for students to use their understanding of place value to solve number riddles.

In this lesson, students use their understanding of place value to determine a secret number and justify why the number matches the clues. When students solve the riddles, they have opportunities to look for and make use of the base-ten structure of numbers (MP7). In the synthesis, students discuss and solve a number riddle.

If students need additional support with the concepts in this lesson, refer back to Unit 4, Section B in the curriculum materials.

### Access for:

#### Students with Disabilities

- Representation (Activity 2)

#### English Learners

- MLR8 (Activity 2)

## Instructional Routines

True or False (Warm-up)

### Materials to Gather

- Bags or envelopes: Activity 2
- Connecting cubes in towers of 10 and singles: Activity 1, Activity 2

### Materials to Copy

- Number Riddle Cards (groups of 20): Activity 2

## Required Preparation

For the lesson synthesis, create a chart with clues. Leave a few lines in between each clue. Fold the

chart paper so that only the first clue is showing.

- My number has more than 6 tens.
- My number is less than 100.
- My number has 8 tens.
- My number is the sum of  $51 + 32$ .

### Lesson Timeline

Warm-up	10 min
Activity 1	10 min
Activity 2	25 min
Lesson Synthesis	10 min
Cool-down	5 min

### Teacher Reflection Question

As you finish up this unit, reflect on the norms and activities that have supported each student in learning math. List ways you have seen each student grow as a young mathematician throughout this work.

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## Cool-down (to be completed at the end of the lesson)

 5 min

Which Clues Fit?

### Standards Alignments

Addressing 1.NBT.B, 1.NBT.C

### Student-facing Task Statement

The secret number is 95.

Circle the **4** clues that describe the secret number.

1. My number has 9 tens.
2. My number is greater than 100.
3. My number is  $90 + 5$ .
4. My number has 9 ones.
5. My number is the sum of 7 tens and 25.
6. My number is greater than 75.

### Student Responses

Circles 1, 3, 5, and 6.