Exemplars K–12
We Set the Standards!

Tables for a Party

Mrs. Gomez is having a party to celebrate the hard work of the students in her class. Mrs. Gomez has thirty-four students in the class. The tables in the classroom only have room for ten students to sit at each table. How many tables does Mrs. Gomez need in order to have room for all thirty-four of the students to sit? Show all of your mathematical thinking.

Tables for a Party

Place Value Unit
TEKS Covered in This Unit: 3.2A, 3.2B, 3.2C, 3.2D
Mathematical Processes: 3.1A, 3.1B, 3.1E, 3.1G

Task

Mrs. Gomez is having a party to celebrate the hard work of the students in her class. Mrs. Gomez has thirty-four students in the class. The tables in the classroom only have room for ten students to sit at each table. How many tables does Mrs. Gomez need in order to have room for all thirty-four of the students to sit? Show all of your mathematical thinking.

Alternative Versions of the Task

More Accessible Version:
Mrs. Gomez is having a party to celebrate the hard work of the students in her class. Mrs. Gomez has twenty-eight students in the class. The tables in the classroom only have room for ten students to sit at each table. How many tables does Mrs. Gomez need in order to have room for all twenty-eight of the students to sit? Show all of your mathematical thinking.

More Challenging Version:
Mrs. Gomez is having a party to celebrate the hard work of the students in her classes. Mrs. Gomez has fifty-two students in her classes. The tables in the room only have room for ten students to sit at each table. How many tables does Mrs. Gomez need in order to have room for all fifty-two of the students to sit? Show all of your mathematical thinking.

TEKS Unit of Study and Evidence

Place Value Unit

The Place Value Unit involves understanding the relative position, magnitude and relationships within the numeration system in order to answer questions such as:

- How could you use base-10 blocks to show what the numerals in this number mean?
- How can you use the additive property of place value to decompose this number?
- What other way(s) can you use thousands, hundreds, tens, and ones to show this number without changing its value?

Exemplars Task-Specific Evidence

This task requires students to use place value to round whole numbers to the nearest ten. The students are also expected to add rounded numbers and compare the total to given numbers.

Underlying Mathematical Concepts
- Round whole numbers to base-10
- Interpret remainders
- Division/Subtraction/Addition
- Number sense to 34

Possible Problem-Solving Strategies

- Model (manipulatives)
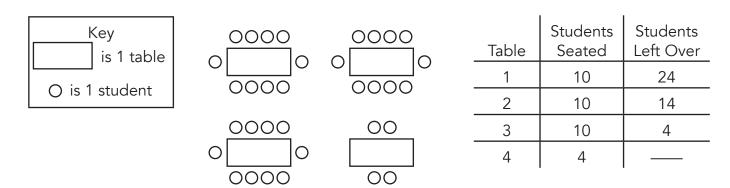- Diagram/Key
- Table
- Number line

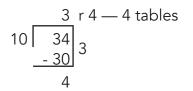## Possible Mathematical Vocabulary/Symbolic Representation

- Model
- Diagram/Key
- Table
- Number line
- Remainder
- Tens, ones
- Odd/Even
- Shape
- Pattern
- 4/10
- 100%
- Place value
- Per
- Estimation
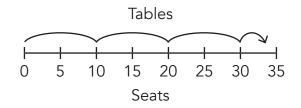- Circle, trapezoid, rectangle, square
- Equal/Unequal

Possible Solutions

Original Version:

Mrs. Gomez will need 4 tables.

Table	Students Seated	Students Left Over
1	10	24
2	10	14
3	10	4
4	4	——

Key
☐ is 1 table
○ is 1 student

3 r 4 — 4 tables

$$10\overline{)34}$$
-30
4

Tables

Seats

More Accessible Version:
Mrs. Gomez will need 3 tables.

More Challenging Version:
Mrs. Gomez will need 6 tables.

Possible Connections
Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Patterns: Table +1, Students +10.
- There are 6 extra seats at the 4th table.
- There are an even number of seats per table.
- 34 is 3 tens and 4 ones.
- Only 4/10 or 40% of table 4 is used.
- 100% of 3 tables are used.
- To solve the task you must round to 4 tables, even though 4 < 5.
- Relate to a similar task and state a math link.
- Solve more than one way to verify the answer.
- Show 10 students per table with other table shapes (square, triangle, circle).
- Show equal sets of students per sides of the tables.
- Show unequal sets of students per sides of the tables.