Grade 3 Math

Unit 1: Place Value, Addition and Subtraction up to 10,000

Dear Families,

We want to make sure that you understand the mathematics your child will be learning this year. Below you will find the standards we will be learning in Unit 1.

Each standard is in bold print, and below each one is an explanation with examples. Please let your teacher know if you have any questions. We appreciate your partnership and support.

3.NR.1.1: Read and write multi-digit whole numbers up to 10,000 to the thousands using base-ten numerals and expanded form.

Students should be able to…

- compose (combine) and decompose (break apart) numbers in various ways.

Examples:

1. 15 tens + 13 ones =
2. 568 =

Answers:

1. 163 OR 16 tens + 3 ones
2. 500 + 50 + 18 OR 500 + 60 + 8

3.NR.1.2: Use place value reasoning to compare multi-digit numbers up to 10,000, using >, =, and < symbols to record the results of comparison.

Students should be able to…

- compare whole numbers up to 10,000.
- create bar graphs and dot plots to represent numerical data when answering a statistical investigative question.
- analyze the data presented in dot plots and bar graphs to compare multi-digit numbers using the symbols to record comparison in context.

Examples:

1. Which comparison is true?
    a. 9,457 > 9,457
    b. 9,475 > 9,547
    c. 9,547 > 9,574

d. 9,547 > 9,457

2. Which number would make the following problem correct?
   9,857 < ____

   a. 9,857
   b. 9,875
   c. 9,785
   d. 9,578

Answers:

1. D.
2. B.

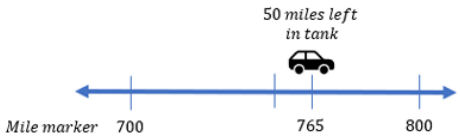
3.NR.1.3: Use place value understanding to round whole numbers up to 1,000 to the nearest 10 or 100.

Students should be able to…

- use place value understanding to round whole numbers for an authentic purpose within authentic situations.
- locate numbers on a number line to determine the nearest multiple of 10 or 100.

Examples:

1. On a road trip, there is a gas station at the 700-mile mark and the 800-mile mark. You have about 50 miles left in the tank when you hit the 765-mile mark. Which gas station is the closest for you to go to?



2. Which numbers round to 500 when they are rounded to the nearest hundred?
   a. 445
   b. 555
   c. 463
   d. 455
   e. 563
   f. 536

Answers:

1. 800-mile mark
2. C, D, & F

3.PAR.2.1: Fluently add and subtract within 1,000 to solve problems.

Students should be able to…

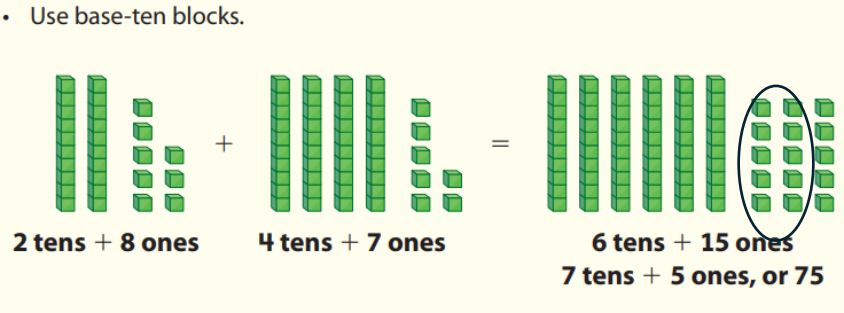
- compose (combine) and decompose (break apart) numbers in various ways.

Examples:

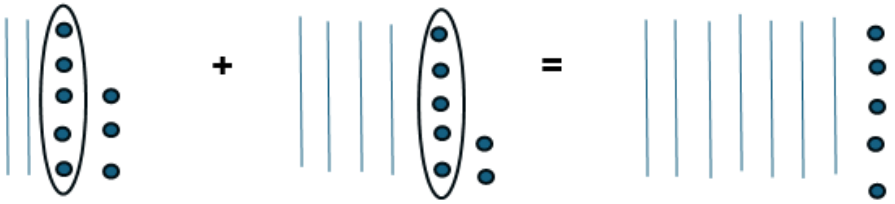
1. 28 + 47 = _____
2. 5,436 – 3,155 = _____

Answers:

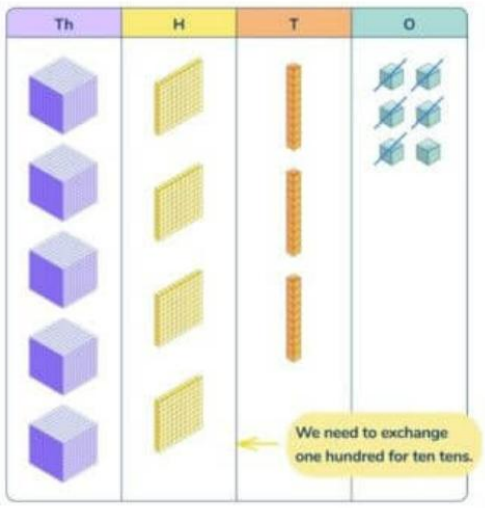
1. One strategy is using a visual with base-ten blocks to represent the numbers.



When a student draws base ten blocks, it may look like this:



2. The visual below is showing how base ten blocks relate to subtraction using the standard algorithm. In this problem, the student would need to break down a hundred to provide more tens. This is what we call regrouping.



	Th	H	T	O
	5	4	3	6
–	3	1	5	5

3.PAR.2.2: Apply part-whole strategies, properties of operations and place value understanding, to solve problems involving addition and subtraction within 10,000.

Students should be able to…

- add and subtract multi-digit whole numbers within 10,000 to solve authentic, mathematical problems using efficient and generalizable procedures, based on knowledge of place value and properties of operations.

Examples:

1. What is the unknown number that makes this equation true?
   323 + 18 = 300 + ____

2. 2,145 – 178 = _____

Answers:

1. 41
2. 1,967

Number Line Representation:

