Grade 2 Advanced Math

Unit 2: Extending Place Value to 1,000

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 2.

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.

2.NR.1.1: Explain the value of a three-digit number using hundreds, tens, and ones in a variety of ways.

Students should be able to…

- decompose and compose numbers up to 100.
- explain that a bundle of ten 10s is equal to 100.

Helpful Vocabulary:

- decompose- breaking a number down into its component parts
- compose- the act of putting together smaller numbers or parts to form a larger number or whole

Example:

100 is a group of how many 10s?

Answer:

10 groups of 10

2.NR.1.2*: Count forward and backward by ones from any number within 1000. Count forward by fives from multiples of 5 within 1000. Count forward and backward by 10s and 100s from any number within 1000. Count forward by 25s from 0. (*Students will only count forward and backward by 1s, 5s, and 10s in this unit.)

Students should be able to…

- count to 1000 forward and backward.
- count to 1000 by 5s forward and backward.
- count to 1000 by 10s forward and backward.

- count to 1000 by 25s.
- count to 1000 by 100s.

Example:

Shota had 720 baseball cards. He bought 6 boxes that each contained 10 new cards. He wanted to use skip counting to quickly count on from 720 to add his new cards to his collection. How would he skip count to find out how many baseball cards he has?

Answer:

730, 740, 750, 760, 770, 780 cards

2.NR.1.3: Represent, compare, and order whole numbers to 1000 with an emphasis on place value and equality. Use >, =. and < symbols to record the results of comparisons.

Students should be able to…

- use the greater than, less than, and equal to symbols to compare numbers within 1000.

Example:

97 _____ 51

Answer:
>

2.NR.2.1: Fluently add and subtract within 20 using a variety of mental, part-whole strategies.

Students should be able to…

- choose flexibly between different strategies to quickly add or subtract accurately and efficiently within 20.
- use strategies that include making 5 or making 10.
- quickly give the sums of all one digit plus one-digit numbers by the end of second grade.

Example:

Solve 29 + 6.

Answer:

If I think of 6 as 1 + 5, I can add the 1 to the 29 first to make a ten (30), then add 5 more to get 35 as my sum.

2.NR.2.2: Find 10 more or 10 less than a given three-digit number and find 100 more or 100 less than a given three-digit number.

Students should be able to…

- use a hundreds chart or number line to tell 10 more or 10 less than a given number.
- use number sense to tell 100 more or 100 less than a given number.

Example:

What number is 100 less than 910?

Answer:

810

2.NR.2.3*: Solve problems involving the addition and subtraction of two-digit numbers using part-whole strategies (*Students will only solve one-step word problems and add and subtract within 100 with no regrouping in this unit. Word problem types will only be those with result, part, or total unknown.)

Students should be able to…

- add two-digit numbers up to 100.
- subtract two-digit numbers without any regrouping needed.

Examples:

1. Ann has 35 goldfish. She gave some to Juan. Now she has 22 goldfish. How many did she give to Juan?
2. Yerin has 61 crayons. She found some more crayons while cleaning up the art room and now has 94 crayons. How many did she find on the floor of the art room?

Answers:

1. 13 goldfish
2. 33 crayons

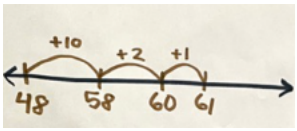
2.NR.2.4*: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (*Students will only solve one-step word problems and add and subtract within 100 with no regrouping in this unit. Word problem types will only be those with result, part, or total unknown).

Students should be able to…

- use a variety of strategies to quickly and accurately solve addition problems and subtraction problems within 100.

Example:
48 + 13 = ?

Answer:



61

2.PAR.4.1: Identify, describe, and create a numerical pattern resulting from repeating an operation such as addition and subtraction.

Students should be able to…

- extend patterns from given rules.
- apply skip counting to create or finish number patterns.

Example:

Anna has 8 pages with 5 stickers on each page. She wants to count them by 5s. Which of the following shows the numbers she should say?

Answer:

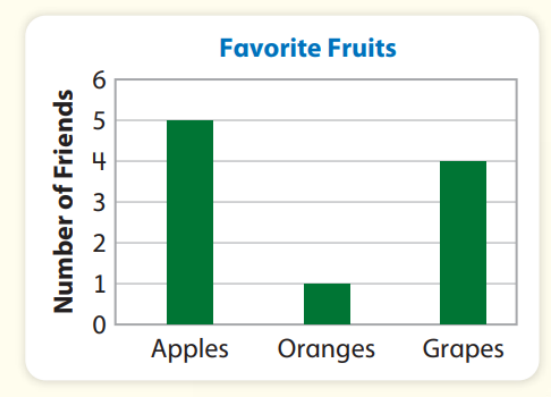
5, 10, 15, 20, 25, 30, 35, 40

2.MDR.5.4*: Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life (*Students will only read bar graphs in this unit.)

Students should be able to…

- ask and answer questions about bar graphs.

Example:



1. Which fruit had the least number of votes?
2. How many more friends chose apples than grapes?

Answers:

1. oranges
2. 5 – 4 = 1, 1 more friend chose apples than grapes

Advanced Math Standards

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…

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

Helpful Vocabulary:

- expanded form: expressing a number by showing the value of each digit based on its place value

Example:

Show 7,832 in expanded form.

Answer:

7,000 + 800 + 30 + 2

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 comparisons.

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