



MATH NEWS



Volume 4

1st Grade Math

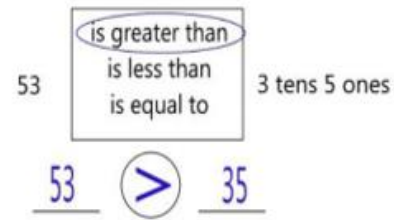
3rd & 4th 9 weeks – Unit 4

UNIT 4 GOALS:

- Understand ten ones as a “ten” and as a group of ten ones.
- Understand a two-digit number in terms of tens and ones.
- Use symbols ($>$ greater than, $<$ less than, or $=$ equal to) to compare two numbers.
- Within 100, add a two-digit number and a single-digit number or another two-digit number using strategies.
- Add within 100, identify the strategy used, and explain your thinking.
- Mentally find 10 more or 10 less when given a two-digit number.
- Subtract multiples of 10 (10-90) from multiples of 10.
- Identify dimes and understand that 10 pennies can be thought of as a dime because they are equal in value.
- Organize, represent, and interpret data.
- Fluently add and subtract numbers within 10.



**Comparing Two Numbers
(Greater Than, Less Than, or Equal To)**
Students will decide if one number is greater than, less than, or equal to another using place value.



Words to Know:

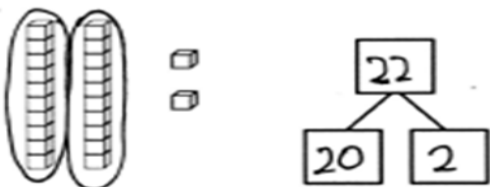
1. Compare – to decide if one number is greater than, less than, or equal to another number.
2. Place Value – (tens and ones) the value a digit has because of its place in a number.
3. Decompose – break a number apart (part-part-whole – 10 can be decomposed into 7 and 3, 6 and 4, or 2 and 8, etc.)

Tens and Ones

Students will unitize a group of ten ones as a whole unit: a ten.

For example:

I counted out 22 cubes. I had enough cubes to make 2 ten sticks. I now have two tens and two cubes left over. So, the number 22 has 2 tens and 2 ones.

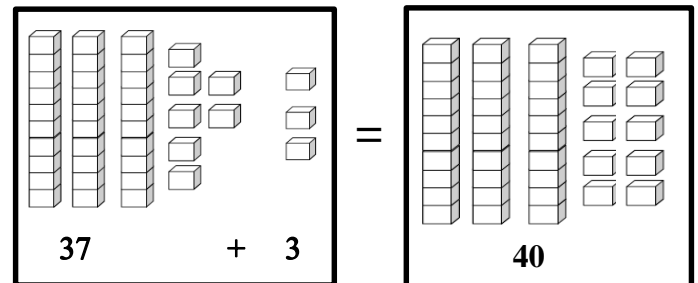


Adding a 2-Digit Number and a Single-Digit Number

There are 37 children on the playground. Three more children come outside to the playground. How many students are on the playground altogether?

Student thinking:

I used cubes to model the problem. I made a pile of 37 and a pile of 3 on my mat. I know I can put the three ones with 37 to get to 40. Now I have 40 cubes altogether so there are 40 children on the playground.



**Ask your child,
“What strategy did you use?”
Expect them to be able to explain
their thinking.**

Mentally Find 10 More or 10 Less

Mentally add and subtract ten to/from any 2-digit number.

Student Examples:

- I know 1 ten more than 56 is 66.
- I know 10 more than 37 is 47.
- I know if I take 10 from 75 it will be 65.
- I know 1 ten less than 98 is 88.

Subtracting Multiples of 10

Subtract multiples of 10 from multiples of 10 using concrete models or drawings and strategies based on place value and the relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used.

Student Reasoning Examples:

- 8 tens take away 3 tens is 5 tens. (8 tens – 3 tens = 5 tens).
- I have 70. I know if I take away 40 I will have 30 left.

Comparing Numbers

Students will decide if one number or total is greater than, less than, or equal to another number or value.

1 ten 7 ones	<div>is greater than is less than is equal to</div>	16
17	$>$	16

Students will be expected to use the symbols ($<$, $>$, $=$) appropriately to show their understanding of greater than, less than, and equal to.

For example:

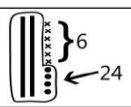
$$\begin{aligned}17 &= 17 \\89 &> 67 \\43 &< 78 \\9 + 8 &= 10 + 7 \\54 + 6 &> 32 + 13 \\50 - 20 &< 80 - 30 \\33 + 40 &= 40 + 33\end{aligned}$$

Addition within 100

Add within 100 using concrete models or drawings and strategies based on place value. Relate the strategy to a written method and explain the reasoning used.

Example: $24 + 6$

Students will decompose 24 into 20 and 4 (2 tens and 4 ones).

$24 + 6 = ?$		
A	$24 + 6$ $20 \quad 4$	$4 + 6 = 10$ $20 + 10 = 30$
B		Draw to solve. Draw 2 tens and 4 ones, then draw 6 more ones. Count to solve.

Example: $48 + 30$

Students use strategies based on place value:

$$48 + 30 =$$

I know 30 is the same as 3 tens.

$48 + 1$ ten is 58; $58 + 1$ ten is 68; and $68 + 1$ ten is 78.

$$\text{So } 48 + 30 = 78.$$

Students will continue to use the strategies taught in Unit 2 to add tens and/or Make 10 using larger numbers.

$$\begin{aligned}58 + 37 &= 95 \\50 \quad 8 \quad 30 \quad 7 \\50 + 30 &= 80 \\8 + 7 &= 15 \\80 + 15 &= 95\end{aligned}$$

$$\begin{aligned}58 + 37 &= 95 \\30 \quad 7 \\58 + 30 &= 88 \\88 + 7 &= 95 \\88 + 2 &= 90 \\90 + 5 &= 95\end{aligned}$$

Dimes

Students will identify a dime.

Dime (10 cents)



Students will understand that 10 pennies can be thought of as a dime.



10 pennies = 1 dime

Fluently Add and Subtract Within 10

By the end of first grade, students are expected to add and subtract fluently (*without counting*) within 10.

 Zero in Addition	 Doubles, Doubles Plus One
 Adding 1, 2, or 3 mentally	 Make a Ten (adding 7, 8, 9)

+	0	1	2	3	4	5	6	7	8	9
0	0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9
1	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9
2	2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9
3	3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9
4	4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9
5	5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9
6	6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9
7	7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9
8	8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9
9	9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9

Doubles, Doubles Plus One

6 + 6 Think Double 6 is 12.

6 + 7 Think Double 6 is 12 plus one is 13

$$\begin{array}{r} \Delta \\ 6+1 \\ \hline \end{array}$$

Make a Ten

9 + 5 – Think: I know 9 + 1 = 10; 10 + 4 = 14

$$\begin{array}{r} \Delta \\ 1+4 \\ \hline \end{array} \text{ So, I know } 9 + 5 = 14$$

8 + 4 – Think: I know 8 + 2 = 10; 10 + 2 = 12

$$\begin{array}{r} \Delta \\ 2+2 \\ \hline \end{array} \text{ So, I know } 8 + 4 = 12$$

7 + 6 – Think: I know 7 + 3 = 10; 10 + 3 = 13

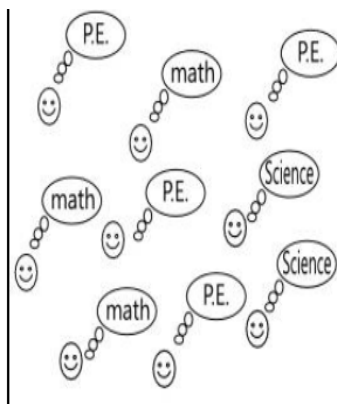
$$\begin{array}{r} \Delta \\ 3+3 \\ \hline \end{array} \text{ So, I know } 7 + 6 = 13$$

Organize, Represent, and Interpret Data

Students work as a class to collect, represent and interpret personally relevant data. They will begin to organize data on a graph and begin to ask questions about the number of data points in a given category.

A group of people were asked “What is your favorite class?” Organize the data using tally marks.

Math	
P.E.	
Science	



How many people like Math? 3 people like Math
 How many people like Science? 2 people like Science
 How many people like P.E.? 4 people like P.E.
 What subject do people like the least? Science
 Write a number sentence that tells the number of people interviewed. 3 + 4 + 2 = 9

Students will again interpret data sets to ask and answer various questions and word problems.

How many more students like red shirts than white shirts? 2

How many students were polled in all? 20

How many fewer students voted for

red shirts than blue shirts? 1

How many more students would need to vote for white shirts to have the same number votes as red shirts? 2

