

DUVAL Math Parent Tips

Place Value, Comparison, Addition and Subtraction to 40

In this module, students will study, organize, and manipulate numbers within 40. They will compare number quantities, using the symbols for greater and less than ($<$, $>$). Students will work with adding and subtracting tens and will begin to add two-digit numbers.

**First Grade,
Module 4**

What Came Before this Module: Students worked with indirect comparison, and ordering objects by length.

What Comes After this Module: In this geometric module, students will review basic shapes, use them to create composite shapes, and discuss ideas, like “whole”, “half” and “fourths”.

Special points of interest:

- ✓ Words to Know
- ✓ Addition and Subtraction of 10
- ✓ Varied Problem Types Within 20
- ✓ Mathematical Practices
- ✓ Homework Help-line

Words to Know

Greater than– shown by the symbol $>$

Less than– shown by the symbol $<$

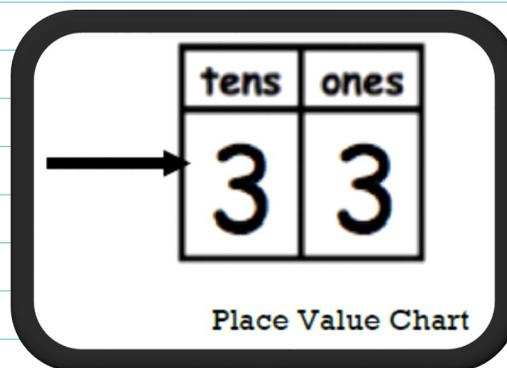
Place value– quantity represented by a digit in a particular place within a number.

Familiar terms from past modules:

- Equal
- Ones
- Tens
- Numerals

Some tools/representations we will use:

- Arrow notation
- Hundreds chart
- Place value chart
- Rekenrek
- Number bonds
- Tape Diagram



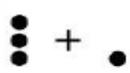
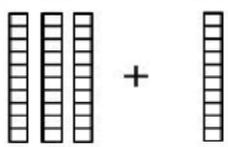
Questions?

Mrs. Wendy Dobson

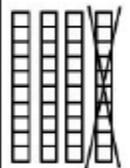
Supervisor, Mathematics K-5

dobsonw@duvalschools.org

Addition and Subtraction of 10

$3 + 1 = 4$ 	$\begin{array}{c} 4 \\ / \quad \backslash \\ 3 \quad 1 \end{array}$
$3 \text{ tens} + 1 \text{ ten} = 4 \text{ tens}$ 	$\begin{array}{c} 4 \text{ tens} \\ / \quad \backslash \\ 3 \text{ tens} \quad 1 \text{ ten} \end{array}$
$30 + 10 = 40$	$\begin{array}{c} 40 \\ / \quad \backslash \\ 30 \quad 10 \end{array}$

Students represent the addition of 10 more with concrete objects and number bonds using both the numeral form and unit form. They should recognize the relationship with adding one more ten.

$4 - 1 = 3$ 	$\begin{array}{c} 4 \\ / \quad \backslash \\ 1 \quad 3 \end{array}$
$4 \text{ tens} - 1 \text{ ten} = 3 \text{ tens}$ 	$\begin{array}{c} 4 \text{ tens} \\ / \quad \backslash \\ 1 \text{ ten} \quad 3 \text{ tens} \end{array}$
$40 - 10 = 30$	$\begin{array}{c} 40 \\ / \quad \backslash \\ 10 \quad 30 \end{array}$

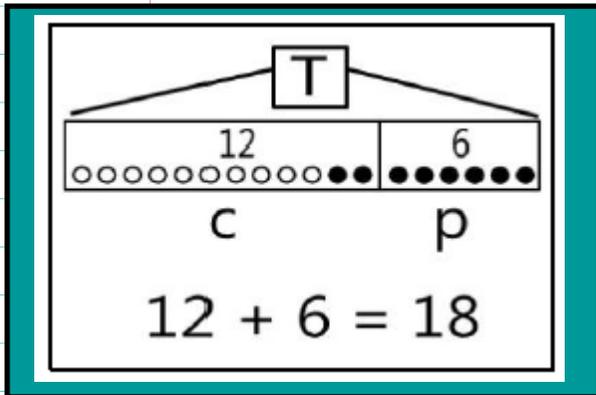
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Students will also represent the subtraction of 10 less with concrete objects and number bonds using both the numeral form and unit form.

They will also add multiples of 10 to 2-digit numbers that include both ones and tens.

Varied Problem Types Within 20

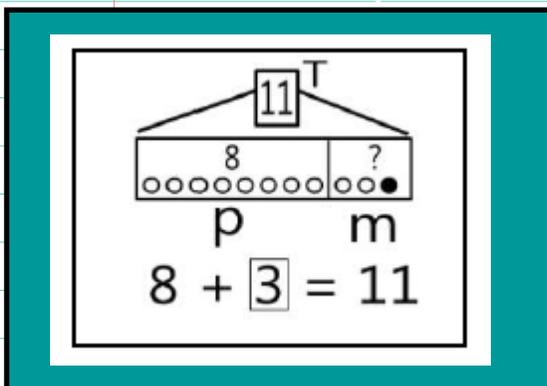
Tammy saw 12 carrots and 6 pumpkins growing in her garden. How many vegetables did she see growing in her garden?



Begin by drawing the tape diagram. There are 12 carrots and 6 pumpkins and the total of both is what is needed to solve the problem. Draw a rectangle divided into two sections. In one section draw 12 circles, and in the second section draw 6 more circles. Above the circles write the number of circles in each section. Below each section label them with letters. (in the image the “c” represents the carrots and the “p” represents the pumpkins) The lines above the tape diagram represents that the numbers should be combined to find the total (T) 12.

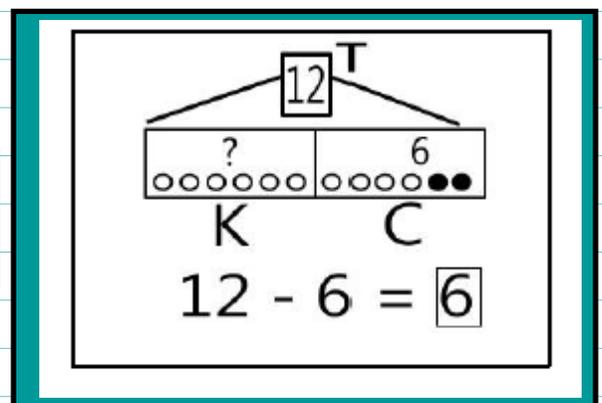
Then students will write an **addition sentence**. $12 + 6 = 18$

8 kids were playing at the park. Some more kids came. Then there were 11 kids. How many more kids came to the park?



Notice the “T” at the top of the image. The **total** is always labeled. The “p” shows how many **played**, the “m” shows how many **more**.

There are 12 strawberries in a basket for Kerry and Cindy. Cindy ate 6 strawberries. How many strawberries did Kerry eat?



Standards for Mathematical Practice

Mathematical Practices Addressed in this Module:

- MP.3** Construct viable arguments and critique the reasoning of others. Students describe and explain their strategies for adding within 40. They critique and adjust student samples to more efficiently solve addition problems.
- MP.5** Use appropriate tools strategically. After learning varied representations and strategies for adding and subtracting pairs of two-digit numbers, students choose their preferred methods for representing and solving problems efficiently. Students may represent their computations using arrow notation, number bonds, quick ten drawings, and linking cubes. As they share their strategies, students explain their choice of counting on, making ten, adding tens and then ones, or adding ones and then tens.
- MP.6** Attend to precision. Students recognize and distinguish between units, demonstrating an understanding of the difference between 3 tens and 3 ones. They use this understanding to compare numbers and add like place value units.
- MP.7** Look for and make use of structure. Students are introduced to the place value chart, deepening their understanding of the structure within the number system. Throughout the module, students use this structure as they add and subtract within 40. They recognize the similarities between $2 \text{ tens} + 2 \text{ tens} = 4 \text{ tens}$ and $2 + 2 = 4$ and use their understanding of tens and ones to explain the connection.



Grades K-5 Homework Help Duval County Parent Helpline

Tuesday and Thursday Evenings (see dates to the right)

6:00 p.m. – 8:00 p.m

Grades K-5 Homework Help

You can access this help on your home computer so that we can demonstrate the mathematics on a white board or call in via telephone.

By Telephone: (571)-392-7703 PIN: 731 439 616 412

By Web: [click here](#)

Want to help your child at home with DUVAL Math?

Every Tuesday and Thursday evening, we are offering a Homework Helpline! You can access using a home computer or call in via telephone. Use the link below to access more information!

<http://www.duvalschools.org/Page/17877>

