

# DUVAL Math Parent Tips

## Sums and Differences to 10

August 2015

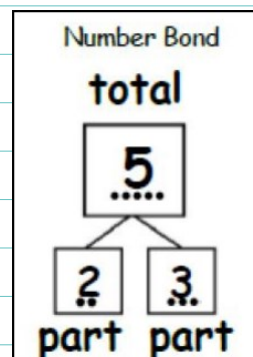
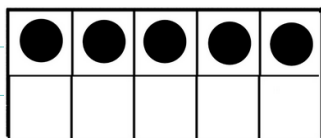
In Module 1, students make significant progress towards fluency with addition and subtraction of numbers to 10. They are presented with opportunities intended to advance them from counting all to counting on, which leads many students then to decomposing and composing addends and total amounts.

First Grade,  
Module 1

### Words to Know

**Number bond** – shows the whole and the parts of a number

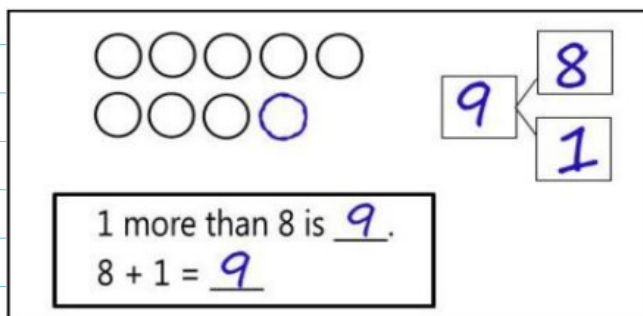
**5 – group** – a row of five items



**Count on** – count from one number to the total. Example:  $2 + 3 = 5$ . Start at the larger number (3) and count 2 more (4, 5). Think 3 count 4, 5.

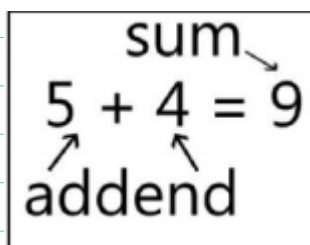
#### Special points of interest:

- ✓ Sums and Differences to 10.
- ✓ Words to Know
- ✓
- ✓ Help at home
- ✓ Standards for Mathematical Practice
- ✓ Florida Standards



**Addend**—a number that is added to another

**Sum**—total in an addition problem



### Questions?

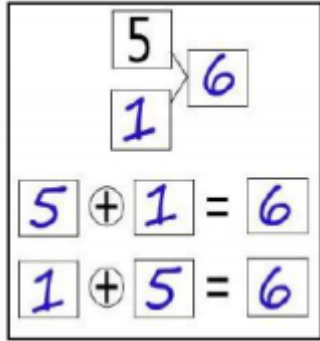
Mrs. Beth Gonzalez

Director, Mathematics K-5

gonzalezb1@duvalschools.org

904-390-2990

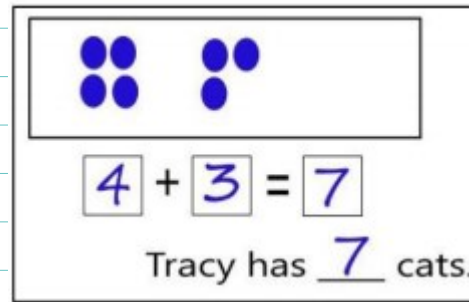
## Part, Part, Whole



Fill in the missing part of the number bond and count on to find the total. Then write 2 addition sentences for each number bond.

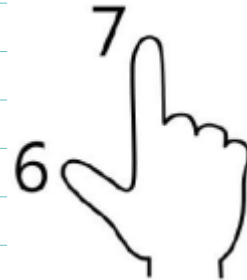
## Equations

Students will work with story problems to solve equations. (An equation is a math sentence with an equal sign.) Tracy has 3 orange cats and 4 white cats. How many cats does Tracy have?



## Counting On

Students will focus on the skill of counting on. Remember to find the larger number first. Keep 5 in your head, and count on.  $5 + 2 = ?$



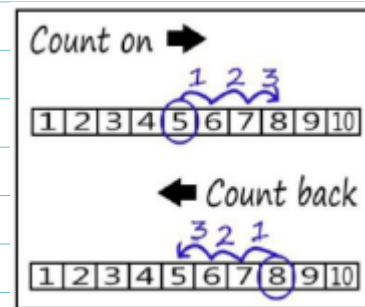
## Number Line

A number line is another way to solve story problems.

**Count on**—start with the smallest number and count on to the larger number.

**Count back**—start with the largest number and count back to the smaller number.

In both cases circle the number to represent where to start.



# Number Bond Dashes

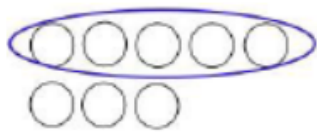
Number Bond Dashes will be done in order to provide fluency when decomposing numbers.

Break the total into parts. Write a number bond and addition and subtraction number sentence to match the story.

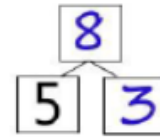
Charlie caught 5 fish in the afternoon.

Charlie caught 8 fish at the end of the day. He caught 3 in the morning. How many fish did he catch in the afternoon?

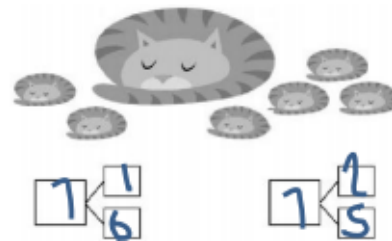
**The goal of DUVAL Math is to produce students who are not merely literate, but fluent, in mathematics. Your child has an exciting year of discovering the story of mathematics ahead!**



**Circle 5 and make a number bond.**



Sample Problem from Module 1: (Example taken from Module 1, Lesson 2) How many animals do you see? Write at least 2 different number bonds to show different ways to break apart the total.



## How can you help at home?

Roll single digit numbers and add them together. • Roll 2-digit or 3-digit numbers and add them together. • Add all the digits of your house number together. • Make a train with legos or colored blocks. Write a number sentence for the different colors in the train. •

Add the price of two items at a store. • Compare gas prices to find the lowest amount. • Start with 20 counters (beans, pennies, etc.) and roll two dice to make a 2-digit number. Subtract counters until you get to 0. • Give your student an addition or subtraction number

sentence and ask them to make up a story problem to go with the number sentence. • Make a physical array with counters and record on paper using symbols.



# Standards for Mathematical Practice

During the first 10 days of schools, teachers will emphasize the importance of the 8 Standards for mathematical practice through 30 minute lessons.

These practices will be embedded in lessons daily throughout the school year.

Strength with the mathematical practices make strong mathematicians!

Common Core  
 Eight Standards for  
 Mathematical Practice

M.P. 1	Keep Trying	Make sense of problems and persevere in solving them.
M.P. 2	Think About Math	Reason abstractly and quantitatively.
M.P. 3	Talk About Math	Construct viable arguments and critique the reasoning of others.
M.P. 4	Model Math	Model with mathematics.
M.P. 5	Use Math Tools	Use appropriate tools strategically.
M.P. 6	Check Your Work	Attend to precision.
M.P. 7	Look for Patterns	Look for and make use of structure.
M.P. 8	Look for Shortcuts	Look for and express regularity in repeated reasoning.

## Mathematics Florida Standards

**1.OA.1.1** – Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (Students are not required to independently read the word problem.)

**1.OA.2.3** – Apply properties of operations as strategies to add and subtract. Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (Commutative property of addition.) To add  $2 + 6 + 4$ , the second two numbers can be added to make ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.)

**1.OA.2.4** – Understand subtraction as an unknown-addend problem. For example, subtract  $10 - 8$  by finding the number that makes 10 when added to 8.

**1.OA.3.5** – Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

**1.OA.3.6** – Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).

**1.OA.4.7** – Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .

**1.OA.4.8** – Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = - 3$ ,  $6 + 6 = .$