



## What is number sense?

Developing number sense is a general outcome in Kindergarten to Grade 9. Number sense can be thought of as flexible thinking and intuition about number. In order for students to develop deep understanding of many math concepts, flexible and fluent thinking with numbers is necessary. Number sense is not generally taught by direct instruction. It is developed through engaging in rich mathematical tasks connected to each person's own experiences and their previous learning.

A true sense of number is much more than being able to write numerals, count objects, memorize facts and follow steps to solve number problems. Mastery of number facts will develop as students increase their number sense. As students learn their facts, they are able to extend their mathematical thinking to larger numbers and more complex computations.

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Number sense develops when students connect numbers to their own real-life experiences. When students use friendly numbers (like numbers that end in zero, such as 10, 30 or 100) or numbers that they are familiar with (for example, 27 is almost 25), this helps them to understand how numbers relate to one another. This results in students who are confident that they can make sense of mathematics.

For example, students with number sense know what **10** is in a variety of situations, including how **6 and 4** or **7 and 3** make **10**, or how **10** can look like **•••••** or like this **••••••••••**.

# THE REVISED KINDERGARTEN – GRADE 9 MATHEMATICS PROGRAM OF STUDIES



How might I support my child with number sense?

## A “+10 Machine”

Work together using one calculator. Press  $+ 10 =$  to make a “+10 machine.” One person enters any number. The other says or writes the number that is 10 more. The  $=$  is pressed for confirmation. The roles are then reversed. The same game can be played with any multiple of 10 or 100.

## Secret Sum

This calculator activity uses the memory feature. A target number is selected, such as 100. Take turns with your child entering a number and pressing the  $M+$  key. Each of the numbers is accumulated in the memory but the sum is never displayed on the screen. If you or your child thinks that the other has made the sum go beyond the target, he announces “over,” and the  $MRC$  (memory recall) key is pressed to check.

## Break It in Two Parts

Pick any 2-digit or 3-digit number. Challenge your child to try to make the number in two parts. For example, 453 can be 400 and 53 or 425 and 28. Try to break the same number in many different ways.

## 50 and Some More

Say a number between 50 and 100. Have your child respond with “50 and \_\_\_\_.” For 72, the response is “50 and 22.” Use other numbers that end in 50, such as “450 and Some More.”

Activities taken from J. Van de Walle & S. Folk, *Elementary and Middle School Mathematics: Teaching Developmentally* (Toronto, ON: Pearson, 2005), pp. 208, 210, 218.

*Adapted with permission from the Alberta Regional Professional Development Consortia.*