

Note: The following terms are defined in the context of their usage in these mathematics lessons. Many of the terms have different meanings in different contexts.

Add (addition) [Sumar (suma)]: To join 2 or more quantities. When adding numbers, the plus sign (+) is used.

Addend (Sumando): A number that is being added. In the addition sentence $2 + 5 = 7$, 2 and 5 are the addends.

Addition sentence (Oración de suma): A mathematical sentence written with numerals, a plus sign, and an equal sign. Example: $2 + 5 = 7$.

After (Después): Following behind something or someone.

All (Todo): The entire amount or quantity; things put together for a total.

Altogether (En total): In all, total amount.

Amount (Cantidad): A total or quantity.

Answer (Respuesta): The solution to a problem or a problem situation.

Bar-type graph (Tipo de gráfica de barras): A graph with rectangular, parallel bars. Each bar is divided into individual cells or boxes; each cell represents 1 piece of data. The bars can be horizontal or vertical.

Before (Antes): In front of, ahead.

Below (Debajo): Under.

Between (Entre): The number that separates 2 numbers, or is in the middle of 2 numbers.

Check (Revisar): To verify the correctness of something.

Column (Columna): An arrangement of things in a straight line vertically (up and down).

Combining word problem (Problema de combinación): A type of word problem that contains 2 parts that make up a whole.

Add (addition)

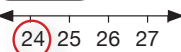
$$5 + 5 = 10$$

After



26 is after 25.

Before



24 is before 25.

Between



25 is between 24 and 26.

Combining word problem

Bill has 2 apples. Sam has 2 apples. How many apples do they have in all?

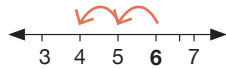
A

Compare word problem

Bill has 2 apples.
Sam has 8 apples.
How many more
apples does Sam
have than Bill?

Count back

$$6 - 2 = 4$$



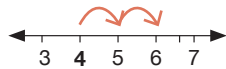
6, 5, 4

Count by tens and ones

Count by tens and
ones: 10, 20, 30
Switch! 31, 32,
33, 34.

Count on

$$4 + 2 = 6$$



4, 5, 6

Equal

45 is equal to 45,
 $45 = 45$, $45 = 40 + 5$, $40 + 5 = 45$.

Equal groups

2 equal groups of 4

Compare (*Comparar*): To examine numbers, sets, or objects to describe how they are alike and how they are different.

Compare word problem (*Problema de comparación*): A type of word problem that finds the difference between 2 amounts.

Composing (*Composición*): Joining sets or numbers.

Count back (*Contar hacia atrás*): A strategy used to find the answer to a subtraction problem. The biggest number is said first, and then the student counts backward, or down.

Count by tens and ones (*Contar de diez en diez y de uno en uno*): A strategy used to count rods and units. The tens are counted first and then the ones.

Count on (*Contar hacia adelante*): A counting strategy used to solve addition problems. The smallest number is said first, and then the student counts the remaining numbers.

Decomposing (*Descomposición*): Breaking apart sets or numbers.

Difference (*Diferencia*): The result of subtracting numbers. In the subtraction sentence $15 - 8 = 7$, 7 is the difference.

Digit (*Dígito*): Any numeral from 0 to 9.

Doubles facts (*Operaciones con dobles*): Facts in which the addends are the same number. Examples: $2 + 2 = 4$, $3 + 3 = 6$, $4 + 4 = 8$, $5 + 5 = 10$, $6 + 6 = 12$, $7 + 7 = 14$, $8 + 8 = 16$, $9 + 9 = 18$.

Doubles + 1 facts (*Operaciones con dobles + 1*): Facts in which the addends are next to each other on a number line. Example of how to solve the doubles + 1 fact $6 + 5$: $5 + 5 = 10 + 1 = 11$.

Draw a picture (*Haz un dibujo*): A strategy used to create a visual model of a word problem.

Equal (*Igual*): The same quantity or amount; is the same as.

Equal groups (*Grupos iguales*): Groups of the same size or number.

Even number (*Número par*): A number that can be divided evenly into 2 groups.

Fact (*Operación*): A math sentence that can be proven true, such as $2 + 3 = 5$.

Fact families (*Familias de operaciones*): A set of related addition and subtraction facts that use the same numbers.

Greater (than) [*Mayor (que)*]: Describes the number that is larger when comparing 2 numbers/quantities.

Greatest (*El mayor*): Describes the number that is largest in a group of 3 or more numbers/quantities.

Group (*Grupo*): A collection of objects.

Hundreds chart (*Tabla de cien*): A chart that lists 100 numbers in order. Each row contains 10 numbers (e.g., 1–10). Each column contains 10 numbers (e.g., 1, 11, 21, 31, 41, 51, 61, 71, 81, 91). Numbers increase by 1 from left to right across the rows. Numbers increase by 10 down the columns.

Identify It strategy (*Estrategia Identifícalo*): A strategy used to solve word problems. There are 3 parts: (1) Underline the question and write the important unit. (2) Circle important words and numbers. (3) Cross out extraneous information. See Appendix E.

In all (*En total*): The total number of objects—either from putting objects together or taking objects away.

Join word problem (*Problema de juntar*): A type of word problem that involves the act of joining. 3 quantities are involved: an initial amount, a change amount (the part being added, or joined), and the resulting amount (the end amount). The resulting amount is always the largest amount.

Least (*El menor*): Describes the number that is smallest in a group of 3 or more numbers/quantities.

Less (than) [*Menor (que)*]: Not as many as; describes the number that is smaller when comparing 2 numbers or quantities.

Line (*Línea*): A long, thin mark.

Make 10 + More strategy (*Estrategia Haz 10 suma más*): A strategy to help students with difficult facts. First, check whether the fact contains a 7, 8, or 9. Then, make 10 by adding part of the other addend to the 7, 8, or 9. The last step is 10 + more, in which the leftover quantity from the addend is

Fact families

Fact family of 2, 3, and 5:

$$2 + 3 = 5, 3 + 2 = 5$$

$$5 - 2 = 3, 5 - 3 = 2$$

Greater (than)

40 is greater than 20.

Group

10 units equal 1 group of 10.

Join word problem

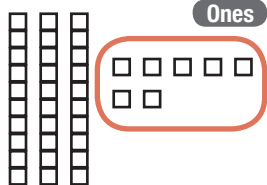
Bill has 2 apples. Sam has 2 apples. How many apples do they have in all?

Less (than)

20 is less than 40.

More

60 is more than 40.



There are 7 ones in 37.

added to 10. See Appendix E.

Middle (*Medio*): Between. Also, the second number in a 3-number sequence. In the number sequence 4, 5, 6, the 5 is in the middle.

Minuend (*Minuendo*): A number from which another number is subtracted. In the subtraction sentence $15 - 8 = 7$, 15 is the minuend.

Minus (*Menos*): To subtract, to take away, or to separate. When subtracting numbers, the minus sign (–) is used.

Minus sign (*Signo de menos*): (–) A sign used in mathematics to indicate subtraction.

Missing (*Falta*): Lacking, absent, or not found. In the number sequence 8, 9, __, the number 10 is missing.

More (*Más*): An additional quantity, amount, or number. Or the quantity, amount, or number that is larger.

Next (*Siguiente*): Nearest in place or position to something else (e.g., the number that comes next).

Number (*Número*): A quantity or value.

Number line (*Recta numérica*): A line with equal space points marked with tick marks in which each point represents a specific value. A number line can be used to show operations.

Number sentence (*Oración numérica*): A mathematical sentence written in numerals and mathematical symbols used to express a mathematical action.

Numeral (*Numeral*): A symbol used to name a number.

Odd number (*Número impar*): A number that can be divided evenly with 1 left over.

Ones (*Unidades*): A place in a number. In the number 37, the 7 is in the ones place.

Part (*Parte*): A piece of a whole.

Pattern (*Patrón*): Objects, figures, or numbers that are arranged following a rule. Some patterns repeat, and some patterns are additive.

Plus (*Más*): An added or joined quantity.

Plus sign (*Signo de más*): (+) A sign used in mathematics to indicate addition.

Point (*Punto*): A small dot used to represent a location on a number line.

Quantity (*Cantidad*): An amount of something.

Regroup (*Reagrupar*): To reorganize the formation of a group; 10 ones are regrouped as 1 ten in some addition problems and 1 ten as 10 ones in some subtraction problems.

Rod (*Decena*): A manipulative that represents 1 ten.

Row (*Fila*): Things arranged in a horizontal line (e.g., numbers on a hundreds chart).

Separate word problem (*Problema de separación*): A type of word problem that involves the act of separating. 3 quantities are involved: an initial amount, a change amount (the part being subtracted, or separated), and the resulting amount (the end amount). The initial amount is always the largest amount.

Sequence (*Secuencia*): An ordered set of numbers, shapes, or other mathematical objects, arranged according to a rule.

Set (*Conjunto*): A collection of items.

Skip-count (*Contar salteado*): To count forward or backward in intervals of a given number.

Smaller (*Más pequeño*): A quantity that is less, or contains fewer items.

Strategy (*Estrategia*): A plan, method, or way to solve a problem or reach an answer.

Subtract (*Restar*): To take away 1 quantity from another; to separate; to find the difference between 2 quantities or sets. When subtracting, the minus sign (–) is used.

Subtraction sentence (*Oración de resta*): A mathematical sentence written with numerals, a minus sign, and an equal sign. Example: $5 - 3 = 2$.

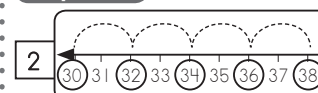
Rod



Separate word problem

Bill had 4 apples. He gave 2 apples to Sam. How many apples does Bill have left?

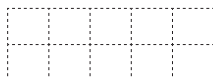
Skip-count



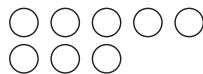
Skip-counting by 2s

A

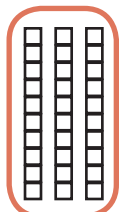
Ten frame



If prompted to draw 8 in a “ten-frame format,” it might look like this:



Tens



There are 3 tens in 37.

Unit

For place value:



For the following word problem, apples is the unit:

Bill has 2 apples.

Sam has 2 apples.

How many apples do they have in all?

Subtrahend (*Sustraendo*): The number being subtracted in a subtraction problem. In the subtraction sentence $15 - 8 = 7$, 8 is the subtrahend.

Sum (*Suma*): The total in an addition problem. In the addition sentence $2 + 5 = 7$, 7 is the sum.

Symbol (*Símbolo*): Something that stands for or suggests something else by reason of relationship, association, or convention.

Take away (*Quitar*): To subtract 1 quantity from another.

Ten frame (*Cuadro de diez*): A frame in which students create various combinations that equal up to 10.

Tens (*Decenas*): The digit or place of a number that contains the groups of 10.

Turnaround fact (*Operación relacionada*): The order of the addends (parts) does not change the whole (sum); the commutative property. $3 + 5 = 8$ is the turnaround fact for $5 + 3 = 8$.

Unit (*Unidad*): For relationships of 10 lessons: a manipulative used to represent 1. For word problem solving lessons: the focus of the question being solved.

Whole (*Entero*): An object or a set in its entirety.