

Associative Property of Addition

The property which states that the way in which addends are grouped does not change the sum. It is also called the *Grouping Property of Addition*.

Example: $(2 + 3) + 4 = 2 + (3 + 4)$

Commutative Property of Addition

The property which states that the order of addends does not change the sum. It is also called the *Order Property of Addition*.

Example: $6 + 7 = 7 + 6$

compatible numbers

Numbers that are easy to compute mentally.

$$\begin{array}{r} \textit{Example: } 327 \text{ is about } \rightarrow 325 \\ \underline{+77} \text{ is about } \rightarrow \underline{+75} \\ 400 \end{array}$$

$327 + 77$ is about 400.

difference

The answer to a subtraction problem.

Example: $10 - 7 = 3$

↑
difference

estimate

A number close to an exact amount that tells about how much or about how many, or to find an answer that is close to the exact amount.

fact family

Related facts using the same numbers.

A fact family for 2, 4, and 6:

$$2 + 4 = 6$$

$$4 + 2 = 6$$

$$6 - 4 = 2$$

$$6 - 2 = 4$$

A fact family for 3, 5, and 15:

$$3 \times 5 = 15$$

$$5 \times 3 = 15$$

$$15 \div 5 = 3$$

$$15 \div 3 = 5$$

front-end estimation

A method of estimating sums, differences, products, and quotients using front digits.

Example: Add the front-end digits.

$$\begin{array}{r} 473 \\ +128 \\ \hline 500 \end{array}$$

473 + 128 is about 500.

palindrome

A word or number that reads the same forward and backward.

Examples: RACECAR and 5,445

regroup

To use place value to exchange equal amounts
when renaming a number.

sum

The answer to an addition problem.

Example: $5 + 6 = 11$

↑
sum

Zero Property of Addition

The property which states that the sum of any number and 0 is that number.

Example: $5 + 0 = 5$