

Math Tool Box

Addition Strategies	Descriptions
Doubles	Adding two of the same number together, such as $5+5$ or $7+7$
Doubles Plus One	Finding "hidden" doubles in expression where one addend is one more than the other, such as $5+6$ (thinking $5+5+1$)
Doubles Plus Two	Finding "hidden" doubles in expression where one addend is one more than the other, such as $5+7$ (thinking $5+5+2$)
Doubles Minus One	Locating doubles in expressions where one addend is one more than the other, such as $5+6$ (but thinking $6+6-1$ versus $5+5+1$)
Doubles Minus Two	Locating doubles in expressions where one addend is two more than the other, such as $5+7$ (but thinking $7+7-2$)
Combinations of Ten	Recognize expressions equaling 10 such as $6+4$, $8+2$, or $7+3$ for use in other strategies
Counting Up/On	Subitize one addend in order to continue counting forward.
Add One to Nine	Used when adding 9 to any number. When you see $6+9$ you think $6+10-1$.
Make Ten	We see $7+4$ and think $7+3+1$ or see $8+6$ and think $8+2+4$ or $4+4+6$
Adding Ten	Adding 10 to any number increases the digit in the tens place by one $5+10=15$, $12+10=22$.
Commutative Property	The word "commutative" comes from "commute" or "move around", so the Commutative Property is the one that refers to moving stuff around. For addition, the rule is " $a + b = b + a$ "; in numbers, this means $2 + 3 = 3 + 2$
Associative Property	The word "associative" comes from "associate" or "group"; the Associative Property is the rule that refers to grouping. For addition, the rule is " $a + (b + c) = (a + b) + c$ "; in numbers, this means $2 + (3 + 4) = (2 + 3) + 4$.

Subtraction Strategies	Descriptions
Counting Back	Beginning with the minuend, count back the number you are subtracting: we would see $9-3$ and think, "9...8, 7, 6" for an answer of 6
Counting Up	Beginning with the number you are subtracting count up to the other number; we would see $12-9$ and think "9...10, 11, 12." Our answer would be 3 because we counted three numbers.
Doubles/Decompose	We would see $14-7$ and think $7+7=14$ or see $18-9$ and think $9+9=18$.
Think Addition	Think of related addition problems when confronted with subtraction facts; we would see $7-5$ and think $5+2=7$
Fact Families	Similar to think addition above, think of the fact family to recall the "missing number." For a problem such as $8-5$, think $5+3=8$, $3+5=8$, $8-5=3$, $8-3=5$
Subtracting From Ten	In equations with 10 as the minuend, we would mentally picture 10 (fingers, ten frame, base ten rod) to visualize what would remain when a ten was taken away