Addition Strategies:
Addition by Place Value
Once students understand place value, this is one of the first strategies they utilize. Each addend is broken into expanded form and like place values are combined. When combining quantities, children can work from left to right because the magnitude of the numbers is not changed.

$$23 + 48$$

Multiplication:
In our first multiplication unit, students will develop an understanding of when and how to use multiplication. Multiplication is used when we need to combine many equal groups. There are a variety of strategies students will be learning about to help them combine these groups until they have memorized all their multiplication facts.

Or using the partial sums algorithm:

Commutative Property
4X3 has the same product as 3X4. If I already know 3X4, then I also know 4X3.
Distributive Property
Decompose one of the factors in a multiplication problem into easier parts then multiply and combine the parts.

Or using equations:
20 + 40 = 60
3 + 8 = 11
60 + 11 = 71
Adding One Numbers in Parts
Students begin with one of the addends and add up using numerical relationships such as tens and ones, make ten facts or landmark numbers.

$$23 + 48$$

Show your thinking using picures:

Fact Fluency:
By the end of 3rd grade, students will be expected to know the basic facts up to 10X10. Until we can get those facts known, st

Or using a number line:

Or using equations:
23 + 10 + 10 + 10 + 10 = 63
63 + 7 = 70   70 + 1= 71

Compensation:
The goal of this strategy is to decompose the numbers into easier, friendly numbers. When compensating, remove a specific amount from one addend and give it to the other addend. Choosing which number to adjust is an important

sense.

23 + 48

(23 -2) + (48+ 2)

21 + 50 = 71

Think: I am going to take 2 away from 23 and give it to the 48 because 50 is easier to mentally add than 48.

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