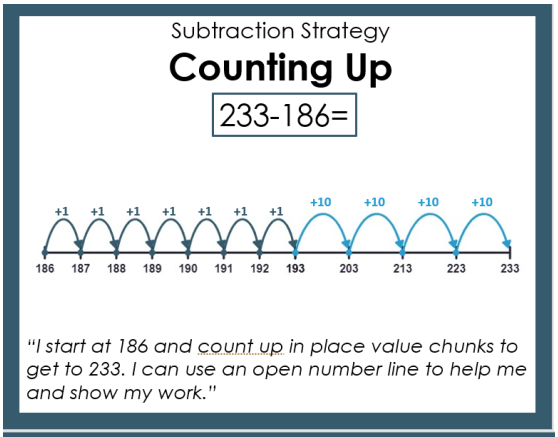
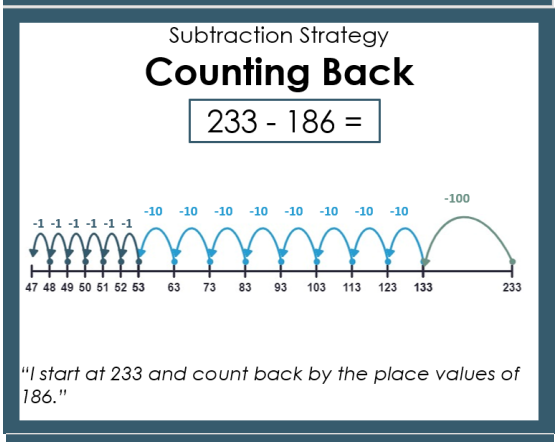
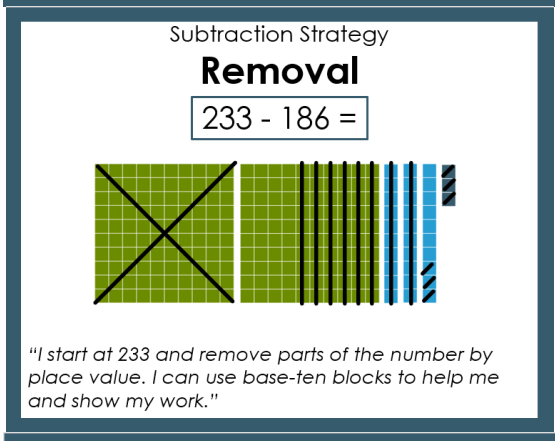
Subtraction Strategies for Grade 3 and Up



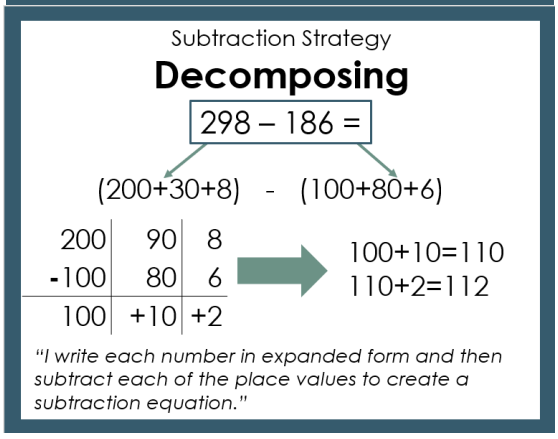
This is also known as the Jump Strategy or Adding Up. Students may decide to count by the highest place value first or start with ones or may be comfortable with jumping in chunks (186+4+40+3). More information can be found on page 175 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 207.



This strategy is not the most efficient strategy for students, but they may feel most confident with it and need more exposure to other strategies. Students with a stronger number sense may be able to subtract larger chunks of a place value, such as 233-100-30-50-6=47. This strategy is like the Removal strategy. It can also be shown with Base Ten blocks. More information can be found on page 176 and 206 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 212.



This strategy is not the most efficient strategy for students, but they may feel most confident with it and need more exposure to other strategies. This is like the Counting Back strategy. More information can be found on page 176 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 212.



This strategy uses place value. If it is an equation that involves regrouping negative numbers will be used. See second example. More information can be found on page 177 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 217.

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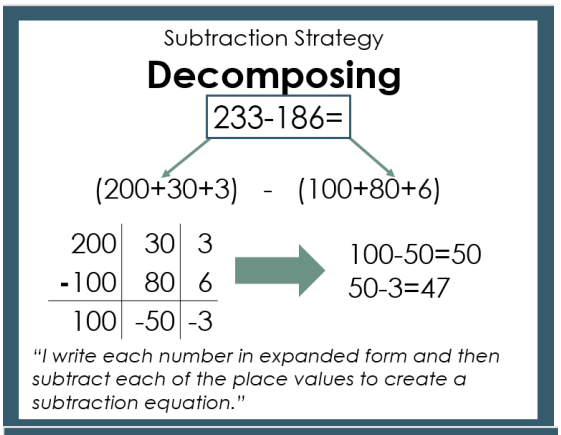
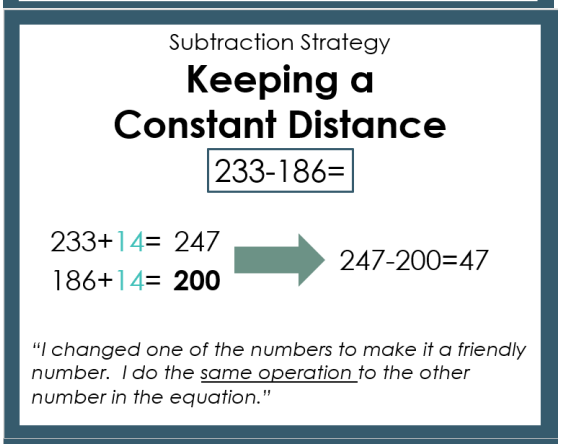
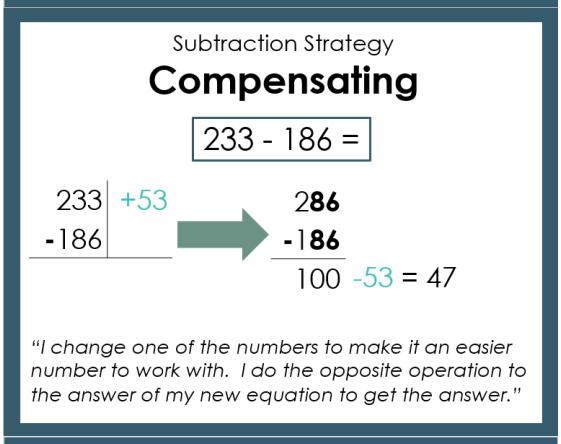


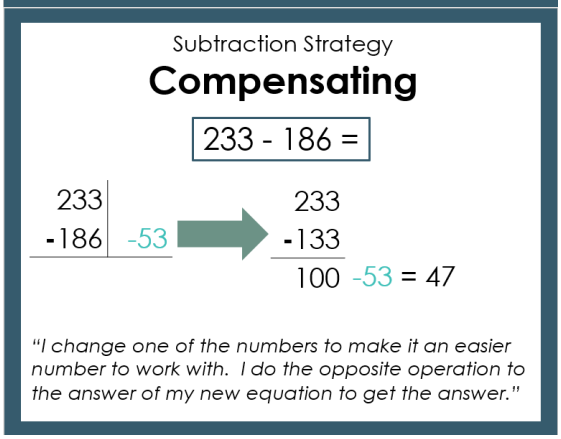
This is a second example of the Decomposing strategy. The equation involves regrouping so a negative number will be used. This strategy will be used by students who have developed a strong number sense. More information can be found on page 177 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 217.



In this example, it was best to make 186 the friendly number of 200 so subtraction could be done without regrouping. More information can be found on page 178 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 226.



Students are adjusting one number of the equation to make an easier problem. If the minuend (top or first number) is used, then the answer is adjusted using the opposite operation. This can be confusing to students so working with the concept with small numbers is helpful. More information can be found on page 179 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 221.

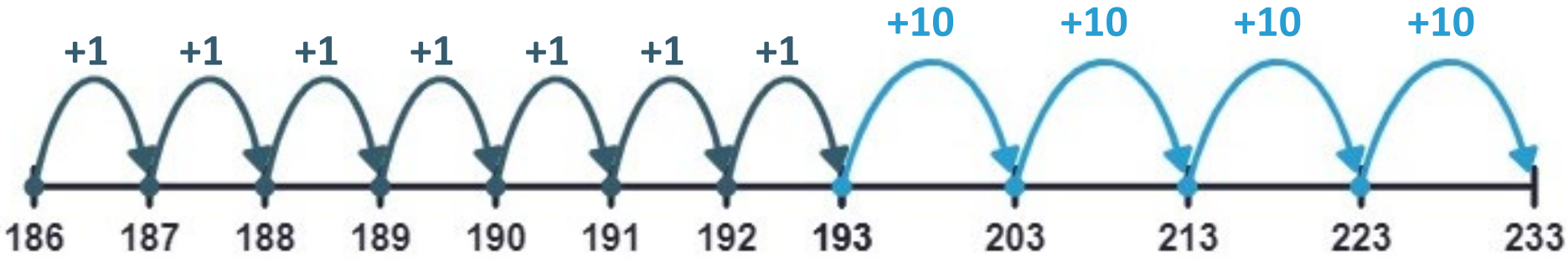


Students are adjusting one number of the equation to make an easier problem. If the subtrahend (bottom or second number) is used, then the answer is adjusted using the same operation. This can be confusing to students so working with the concept with small numbers is helpful. More information can be found on page 179 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number Talks utilizing this strategy can be found starting on page 221

Subtraction Strategy

Counting Up

233-186=

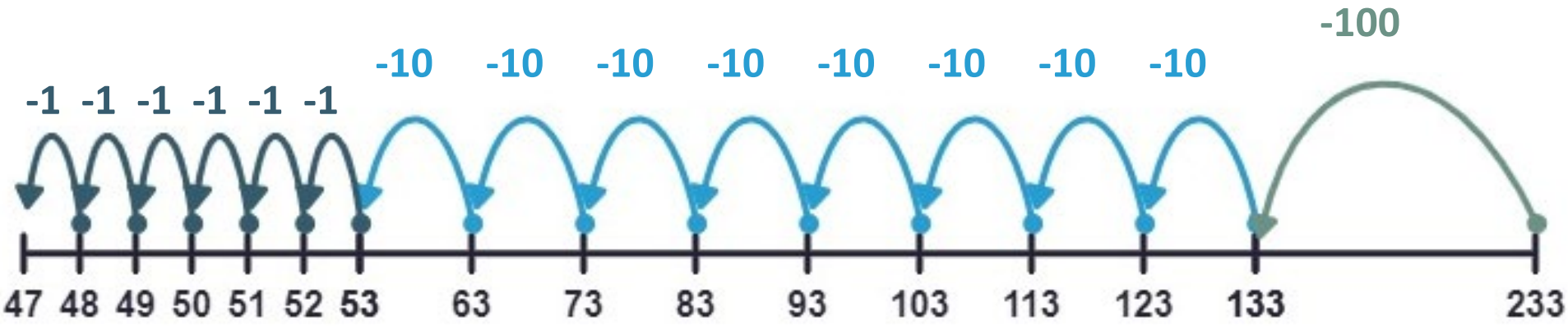


"I start at 186 and count up in place value chunks to get to 233. I can use an open number line to help me and show my work."

Subtraction Strategy

Counting Back

233 - 186 =

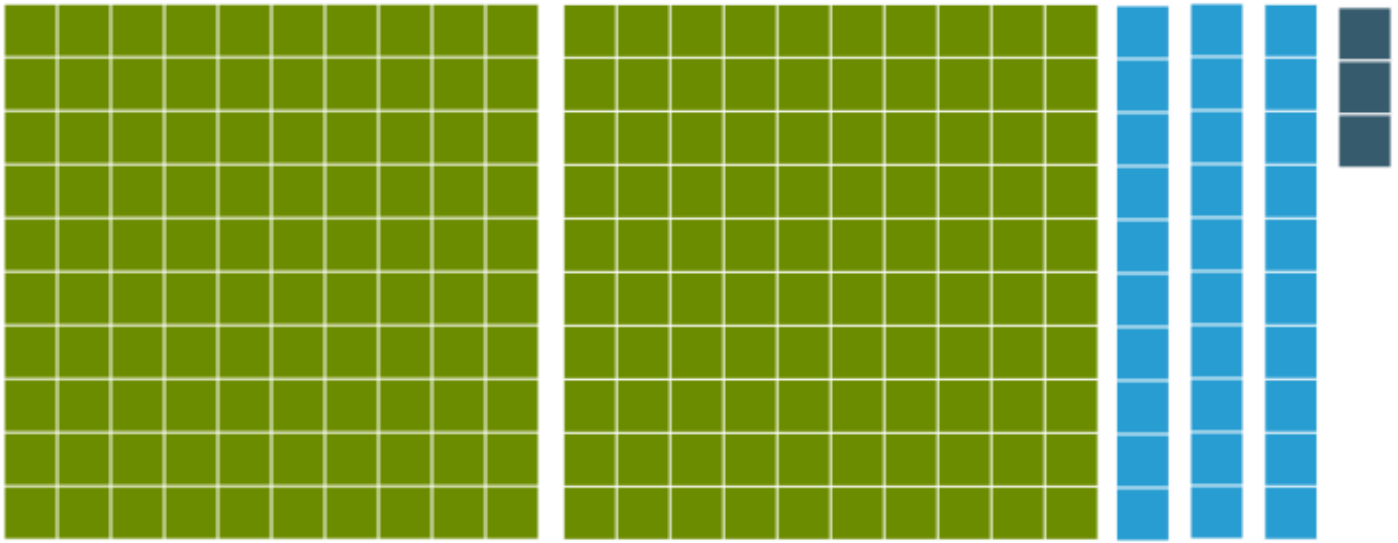


"I start at 233 and count back by the place values of 186."

Subtraction Strategy

Removal

233 - 186 =



"I start at 233 and remove parts of the number by place value. I can use base-ten blocks to help me and show my work."

Subtraction Strategy

Decomposing

298 – 186 =

(200+30+8) - (100+80+6)

200	90	8
-100	80	6
100	+10	+2

100+10=110
110+2=112

"I write each number in expanded form and then subtract each of the place values to create a subtraction equation."

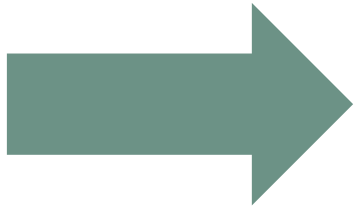
Subtraction Strategy

Decomposing

233-186=

(200+30+3) - (100+80+6)

200	30	3
-100	80	6
100	-50	-3



100-50=50

50-3=47

"I write each number in expanded form and then subtract each of the place values to create a subtraction equation."

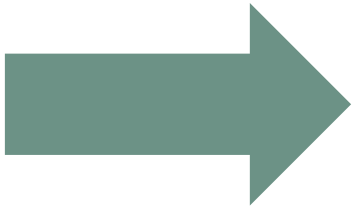
Subtraction Strategy

Keeping a Constant Distance

233-186=

233+14= 247

186+14= **200**



247-200=47

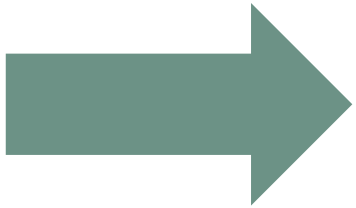
"I changed one of the numbers to make it a friendly number. I do the same operation to the other number in the equation."

Subtraction Strategy

Compensating

233 - 186 =

233	+53
-186	



286

-1**86**

100 -53 = 47

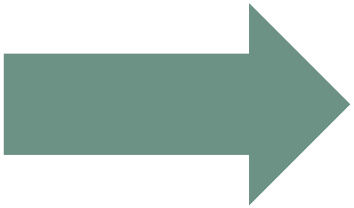
"I change one of the numbers to make it an easier number to work with. I do the opposite operation to the answer of my new equation to get the answer."

Subtraction Strategy

Compensating

233 - 186 =

233	
-186	-53



233
-133
100 -53 = 47

"I change one of the numbers to make it an easier number to work with. I do the opposite operation to the answer of my new equation to get the answer."