# GRADE 2: Add/Subtract Two Digit Numbers With and Without Regrouping

The goal is for students to develop computational fluency, learning a variety of strategies to use to solve problems. Students will look at the numbers involved in the problem and will then decide on a method that best fits the situation. The following are some of the strategies for solving addition/subtraction problems in second grade. The majority of these strategies help students develop a strong sense of number and number relationships which are very important life skills.

## ADDITION

### LANDMARK & FRIENDLY #'s:

96 + 46 =

- Take 4 from 46 and add it to the 96 to make 100.
  The new problem is now a mental math problem:
  100 + 42 = 142

### COMPENSATION:

- Knowing since 6 + 4 = 10, 96 + 34 = 100 + 30 = 130
  (Compensating one number for a change on the other number. Move 4 from 34 to 96 to make 100.)

### DECOMPOSING:

59
+ 46

50 + 40 = 90
9 + 6 = 15
90 + 15 = 105

### NUMBER COMBINATIONS:

- Doubles, Doubles ± 1 16 + 15 = 15 + 15 + 1 = 31
- Making 10's, 16 + 14 = 20 + 10 = 30
  (Add 10+ 10 from 16 & 14, the other 10 from 6 + 4)
- Using Known Facts 7 + 8 = 15 so 7 + 9 = 16

## SUBTRACTION

### LANDMARK & FRIENDLY #'s:

61 - 28 = (+2 to change 28 to 30)
61 - 30 = 31
31 + 2 = 33 (Subtracted 2 too many, add back)

### COUNTING ON (for small differences):

68 - 64 = 4

Start at 64 to count up to 68. Just difference between 8 and 4!

### CONSTANT DIFFERENCE (add/remove same amount from each number):

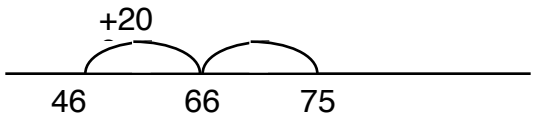
- 91 - 39 (+1 to each) = 92 - 40 = 52
- 91 - 48 = (-40 each) 51 - 8 = 43
  resulting in a much simpler problem

### NUMBER COMBINATIONS:

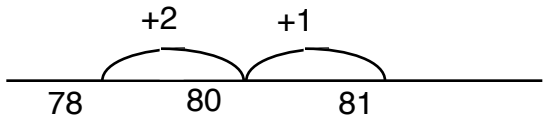
- Doubles, Doubles ± 1 17-9 = 18-9-1 = 9-1 = 8
- Making 10's 17-9 = 17-10+1 = 7+1 = 8
- Using Known Facts 23-12 = 23-10-2 = 11

Open Number Line: Used to model "leaps" for adding/subtracting numbers by decomposition. Builds strong number sense. Students can start at either number and count up or back. The size of the "leaps" will vary with ability.

46 + 29 =




81 - 78 = 3
*start at 78, count up for small differences




81 - 18 = 63
* start at 81, count back (take away) for large differences