ADDITION STRATEGIES

Double Plus or Minus

Example: 6 + 7 = _____

Student Thinks: 6 + 6+ 1 = _____ OR 7 + 7 – 1 = _____

The student made it a simpler problem by breaking the 7 into a 6 and a 1. By doing this the student was able to double 6 and then add in the additional 1.

Friendly Fives

Example: 6 + 7 = _____

Student Thinks: (5 + 1) + (5 + 2)= _____

5 + 5 = 10

1 + 2 = 3

10 + 3 = 13

The student chose to change both addends into friendly numbers. Hence the 6 became a 5 and a 1. The 7 became a 5 and a 2. This left the student with 5 + 1 + 5 + 2 = _____. The student knew that he/she would be left with doubling a 5 which is simple for most third graders and then they would add in the 1 and 2 to get the sum of 13.

Making Tens

Example: 9 + 7 = _____

Student Thinks: 10 + 6 = 16

The student changed the 9 to the friendly number 10 by taking one from the 7 and giving it to the 9. This left the student with 10 + 6 = _____. This is possible because it keeps the distance between the two numbers the same.

Using Compensation

Example: 6 + 8 = _____

Student Thinks: 6 + 8 = _____

Take one from the 8 and give it to the 6 so that the problem is

7 + 7 = 14

Using Known Facts

Example: 7+ 8 = _____

Student Thinks: I know 6 + 8 = 14. Therefore, I can think 14 + 1 = 15

The student used the familiar problem of 6 + 8 to solve the original problem by adding one more to the product and keeping the distance between both addends the same.

Double

Example: 6 + 8 = _____

Student Thinks: 7 + 7 = 14

The student took one from the 8 and gave it to the 6 to make the problem into a simple doubling problem.

Near Doubles With Addition

Example: 25 + 26 = _____

Student Thinks: 25 + 25 + 1 = 51

The student realized that the 26 can be a 25 and a 1. Therefore the student was left with the option of doubling 25 and then adding in the extra 1.

Splitting

Example: 64 + 12 = _____

Student Thinks: 60 + 10 + 4 + 2 = _____

60 + 10 = 70

4 + 2 = 6

70 + 6 = 76

The student split the number into place values so that it would be easier to solve and then combined the numbers back together.

Making Jumps Of Ten

Example: 28 + 44 = _____

Student Thinks: 44 + 10 = 54

54 + 10 = 64

64 + 8 = 72

The student broke the 28 into 10 + 10 + 8 and added each number to the 28 to get the sum of 72.

Moving To The Next Friendly Number

Example: 98 + 37 = _____

Student Thinks: 100 + 35 = 135

The student knew he/she could add two to the 98 to make the friendly number of 100. However the student needed to keep the distance between the two numbers the same so the student subtracted 2 from 37 which left him/her with the problem of 100 + 35 = _____.

Swapping

Example: 32 + 99 = _____

Student Thinks: 39 + 92

40 + 91 = 131

This is similar to the splitting strategy. When adding it does not matter the order in which you add. Therefore the digits in the ones place can be switched to make an easier problem. By doing that the student was left with the problem 39 + 92. The student then realized that he/she could move one from the 92 to the 39 to make the problem even easier and turning it into 40 + 91 = _____