* **Doubles** for Addition Facts: 2+2, 3+3 (Once a child knows their doubles, they often use those facts to derive facts close to the double; e.g., knowing that 8+ 8= 16, a child might say I know 8+7 is 15 because it is one less than 8+8, or one more than 7+7)
* **Doubles/ halves** for Multiplication Facts: Once a child knows their multiples of 2, they easily double those to know their multiples of 4 and 8. Likewise, they can determine their multiples of 6 by doubling their 3s and half the multiples of 10 to find their 5 facts!
* **Using Known Fact** : e.g., 4+3 = 7 so 40 + 30 = 70
* **Counting on**: e.g., 40 + 35 is the same as 40 + 10 + 10 +10 + 5
* **Breaking the numbers apart by place value**: e.g., by tens and ones **…..**25 + 33is the same as (20+ 30) + (3 + 5) or hundreds, tens and ones in partial sums and partial products.
* **Making Tens**, e.g., 19+6 is the same as 20 + 5
* **Rounding or adjusting** e.g., 39 + 28 is the same as 40 + 27 or 40 + 30 -3 and 23 + 19 is the same as 23 + 20 - 1
* **Use Compatible Pairs** e.g., 23+ 9 + 7 is the same as (23 + 7) + 9

**Many adults wonder how children subtract without using the standard algorithm. They often:**

* **Use a Number Line :** to add on to find the difference and to count back to find a difference using landmark or “friendly” numbers:

e.g., 57 – 29



**adding on:**



**counting back**:



* **Subtract in Parts:** e.g., by multiples of 10 and then by reorganizing what is left of the 10s and 1s. e.g., 56 – 37 is the same as 56 – 30 which is 26 and then 26 – 7 is 19
* **Subtract using place value and by rounding and adjusting just as with addition**

38 -25 is the same as (30-20) + (8-5) and 37- 19 is the same as 37 -20 + 1