

4. **Sames:** This method is used when a number is subtracted from itself; this is another generalization that students can quickly identify. $7 - 7 = 0$.
5. **Recognizing Doubles:** Recognizing the fact families associated with adding doubles.
6. **Subtracting tens:** This is a pattern that students can pick up on very quickly, seeing that the ones digit remains the same.
7. **Subtracting from ten:** Recognizing the fact families for Sums to 10.
8. **Subtracting nines:** Again, the pattern that develops for subtracting 9 can be easily identified by most students. They can quickly subtract 9 from a minuend by adding 1 to the ones digit in the minuend. $17 - 9 = 8$, $16 - 9 = 7$.
9. **Subtracting numbers with consecutive ones digits:** This pattern will always result in a difference of 9, $16 - 7 = 9$, $13 - 4 = 9$, $15 - 6 = 9$ all have ones digits that are consecutive and the result is always 9.
10. **Subtracting numbers with consecutive even or consecutive odd ones digits:** This pattern will always result in a difference of 8. $14 - 6 = 8$, $13 - 5 = 8$, $12 - 4 = 8$.

These strategies clearly help students to subtract quickly. How you teach these strategies, allowing the students see the patterns develop, will make students more comfortable using these “shortcuts” and get them off their fingers.

Having said that, as with many of the concepts and skills in math, students need to compare and contrast problems to make them more recognizable to them. Without being able to identify the proper strategy by examining the problem, memorizing these strategies may become more burdensome and cause greater confusion than just rote memorization.

So while you might teach one strategy at a time, as you add to the number of strategies students can use for a specific numbers, you will need to review previous strategies and, this is important, combine strategies on the same work sheets asking students to only identify the strategy they would use for each problem and why they are using it. Being able to compare and contrast will lead to increased student understanding, comfort, and achievement using these strategies..

For example,

$16 - 9$, students are subtracting 9, they add one to the units digit.

$15 - 7$, students are subtracting numbers with consecutive odd units digits, the difference is 8.

$17 - 8$, students are subtracting numbers with consecutive units digits, the difference is 9