

Lost and Found

Ask a few students to get a piece of paper and a pencil ready.

Step 1. Ask a student to write down any 4 digit number on a sheet of paper. You may want to have a second student watch so they can check that the math is done correctly.

Step 2. Have them add the 4 digits together to get a second number

Step 3. Have them subtract this new number from their original number.

Step 4. Say "Your answer is a 4 digit number. Circle any one of the digits 1 to 9 (not zero) but do not let me know what the number is or where it is located.

Step 5. Ask them start at the left side of their number (the thousands place) and read the 3 digits that are not circled. Say that we have "lost" one of the digits.

Step 6. You add up the three numbers they tell you. If the total is a 2 digit number add those digits together to get a 1 digit number.

Step 6. Subtract that number from 9 to find the "lost digit." Announce the lost digit. number.

Step 7. At this point, ask them to call out the final number. In your head, add 115. to that number.

Example 1:

Step 1. 4379

Step 2. $4 + 3 + 7 + 9 = 23$

Step 3. $4379 - 23 = 4356$

Step 4: 4 3 **5** 6 They circle the 5

Step 5. They say 4 3 6

Step 6. $4 + 3 + 6 = 13$ and $1 + 3 + 4$

Step 7. $9 - 4 = 5$ Say, the lost digit was a 5."