

Knowing Your Place

Name _____

Enter: three hundred sixty-nine

Display:

In one operation, remove the “6” from the number without changing any of the other digits.

Display:

What did you enter? _____ Why? _____

In one operation, change the “3” to a “5” without changing any of the other digits.

Display:

What did you enter? _____ Why? _____

| | ENTER | CHANGE TO | WHAT DID YOU DO? |
|----|---------------------------|-----------|------------------|
| 1. | twenty-seven | 7 | |
| 2. | sixty-three | 60 | |
| 3. | three hundred eighty-five | 85 | |
| 4. | four hundred sixty-four | 404 | |
| 5. | nine hundred seventy-nine | 970 | |
| 6. | three hundred eighteen | 358 | |
| 7. | six hundred sixty-four | 964 | |
| 8. | one hundred five | 125 | |
| 9. | two hundred twelve | 323 | |

Thinking Cap

If you add one to the digit in the units place of 119 what happens? Why?

If you subtract 5 from the digit in the units place of 123 what happens? Why?

TEACHER NOTES: *Knowing Your Place*

Objective: Demonstrate knowledge of the value of digits in specified places of given numbers.

Grade Level: 2-3

Topic: *Place Value*

Using the Activity:

This activity can be completed with students working in pairs alternating use of the calculator and recording responses. Review with students the meaning of each place value for hundreds, tens, ones before starting the activity.

Students should know that since the 6 is in the tens place of 369 it represents 6 groups of ten. To remove the 6 you must subtract 60. To change the 3 in 309 to a 5, students must know that you need to add 2 more groups of 100, therefore, you enter + 200.

Answers:

What Did You Do?

1. $\boxed{-} \boxed{2} \boxed{0}$

2. $\boxed{-} \boxed{3}$

3. $\boxed{-} \boxed{3} \boxed{0} \boxed{0}$

4. $\boxed{-} \boxed{6} \boxed{0}$

5. $\boxed{-} \boxed{9}$

6. $\boxed{+} \boxed{4} \boxed{0}$

7. $\boxed{+} \boxed{3} \boxed{0} \boxed{0}$

8. $\boxed{+} \boxed{2} \boxed{0}$

9. $\boxed{+} \boxed{1} \boxed{1} \boxed{1}$

Thinking Cap

These questions provide readiness experiences for regrouping. The calculator shows when one is added to 119, 120 is obtained. This helps explain that ten ones have been regrouped to form a group of ten.

When 5 is subtracted from 123, 118 is displayed. This helps explain that a group of ten has been regrouped to 10 ones.

Extension:

Using only the $\boxed{0}$, $\boxed{1}$, $\boxed{+}$, $\boxed{=}$ keys, display 354 using the fewest key strokes.

Answer: (without automatic constant) 18 keystrokes $111 + 111 + 111 + 11 + 10 =$ (with automatic constant) 14 keystrokes $111 + + = + 11 + 10 =$