

# Again and Again!

Name \_\_\_\_\_

Enter the given key sequence into your calculator. Color over each number displayed in charts below as [=] is pressed again and again.

## Problem1:

Press [AC] Enter 2 [+][+] 0 [=][=][=][=] . . .

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

## Problem2:

Clear the calculator. Press [AC] .

Enter 3 [+][+] 0 [=][=][=][=] . . .

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Which numbers are colored on both charts? \_\_\_\_\_

## TEACHER NOTES: *Again and Again!*

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**Objective:** To skip count by a given number.

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**Grade Level:** 1-3

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**Topic:** *Numeration/Operation Readiness (x)*

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### Using the Activity:

This activity uses the automatic constant for multiplication to develop the concept of multiplication. Students should work in pairs, one student enters the data into the calculator and calls out the display, while the other child colors the numbers displayed in the chart. Roles are reversed for the second part of the sheet.

**For problem 1**, students must key in 2  $\boxed{+}$   $\boxed{+}$  0 to activate the automatic constant and start counting at 0. This will result in a direct correlation between the number of times the equal key is pressed and the resulting multiplication relationship. (Note: 2  $++===$  gives 8 not 6)

2  $\boxed{+}$   $\boxed{+}$  0  $\boxed{=}$   $\boxed{=}$   $\boxed{=}$  gives 6, equating to

2 + 2 + 2 (3 additions of 2) which also gives 6, equating to

3 x 2 (3 times 2) which is 6

### Ask students:

1. *What is the calculator doing? skip counting by 2*
2. *If you press  $\boxed{=}$  even times what number is displayed? 14*
3. *What number do you think will be displayed next? 16 is displayed after 14*
4. *How many times do you think you have to press  $\boxed{=}$  to display 24? answers will vary (12) Try it! Were you right?*
5. *If the chart were extended, do you think 65 would be displayed? Why or why not? No. Only even numbers are displayed when counting by 2 beginning at 0.*

Repeat the questions for **problem 2**.

Children should see that 6, 12, 18, 24, 30, 36, 42, & 48 are displayed on both charts.

Continue the activity each time beginning with a different number, such as 4  $\boxed{+}$   $\boxed{+}$   $\boxed{=}$  or 5  $\boxed{+}$   $\boxed{+}$   $\boxed{=}$ . Make comparisons after each exploration.

### Thinking Cap

This section has students use estimation skills as well as patterns to predict that  $\boxed{=}$  will have to be pressed 50 times to display 100. Encourage students to use the guess and check problem-solving strategy to find the answer.

### Extension

Use manipulatives and a number line to show skip counting concretely.