

Number Bowling

Junior high school

Objective

Read whole numbers and understand that the position of a digit signifies its value.
Understand and use the concept of place value in whole numbers.

Explanation of the activity

Think of a 3-digit number and enter it into your calculator.
Pretend each digit is a “bowling pin.”
Knock down each pin one at a time, so that your calculator display shows 0.

A: Using subtraction

B: Using addition

Using the calculator

Calculator functions used: Subtraction, addition, last answer memory

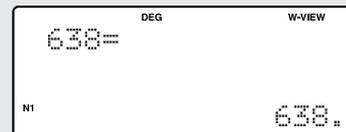
A: Using subtraction

Press the following buttons and then start operation.

ON/C **MODE** **0**

(1) Enter a 3-digit number.

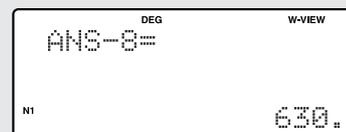
638 **=**



DEG W-VIEW
638=
N1 638.

(2) Knock down one digit, or “pin”; i.e. change the last digit to a 0.

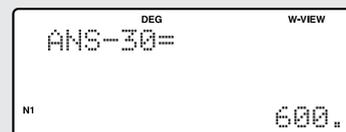
- **8** **=**



DEG W-VIEW
ANS-8=
N1 630.

(3) Knock down the next pin; i.e. change the tens column digit to 0.

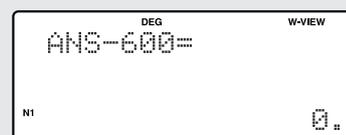
- **30** **=**



DEG W-VIEW
ANS-30=
N1 600.

(4) Knock down the pin of the hundreds column.

- **600** **=**



DEG W-VIEW
ANS-600=
N1 0.

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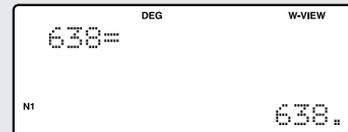
B: Using addition

Press the following buttons and then start operation.

ON/C MODE 0

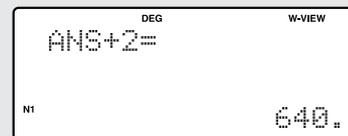
(1) Enter a 3-digit number.

638 =



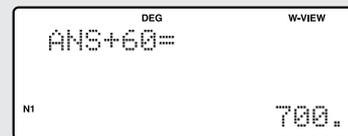
(2) Knock down one digit, or pin; i.e. change the last digit to a 0, except this time, do so by adding a number to the last digit to make it 0.

+ 2 =



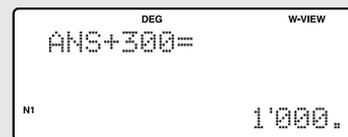
(3) Knock down the next pin; i.e. change the tens column digit to 0.

+ 60 =



(4) Knock down the pin of the hundreds column.

+ 300 =



••••• Using the activity in the classroom •••••

This activity is a good game for students to play in pairs.

One student enters a number in the calculator, and the other student has to knock each digit, or “pin,” down.

Example:

$$638 - 8 = 630$$

$$630 - 30 = 600$$

$$600 - 600 = 0$$

••••• Points for students to discuss •••••

It is important for students to talk about what they are doing and use the appropriate language, for example: “six hundred and thirty, minus thirty, equals six hundred.” Students should be challenged to vary the starting point; i.e. sometimes starting with the hundreds digit and sometimes with the tens digit.

Further Ideas

- Play the game using 2-, 4-, or 5-digit numbers according to the ability of the students.