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.

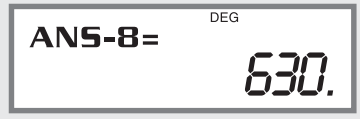
[ON/C] [MODE] [0]

(1) Enter a 3-digit number.

638 [=]

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

[−] 8 [=]



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

[−] 30 [=]

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

[−] 600 [=]

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B: Using addition

Press the following buttons and then start operation.

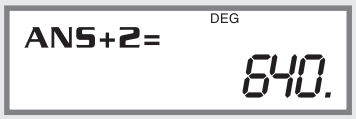
[ON/C] [MODE] [0]

(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.