

Nerdo the Mathnificant Fortune Teller

Overview

A continuation of working with three digit numbers used to predict the future.

Materials

Calculator

Steps

1. Have a volunteer sit at their table and write down a three digit number which will tell their future.
2. Write down the number again immediately after the first number.
3. Put the 6 digit number into the calculator.
4. Nerdo gets a flash that the number is divisible by 11. V checks.
5. Since the past can effect the future. Ask V if they think they have been lucky in the past. If yes tell them to divide their number by 7. If not tell them to divide by 13.
6. The quickly divide by your original number. They will get the opposite of what they divided by with 13 or 7.
7. Discuss why

Math

Writing a three digit number immediately after itself is the equivalent to multiplying by 1001. $11*7*13 = 1001$.

Example

1. 341
2. $341341/11 = 31031$
3. $31031/7 = 4433$
4. $4433/341 = 13$